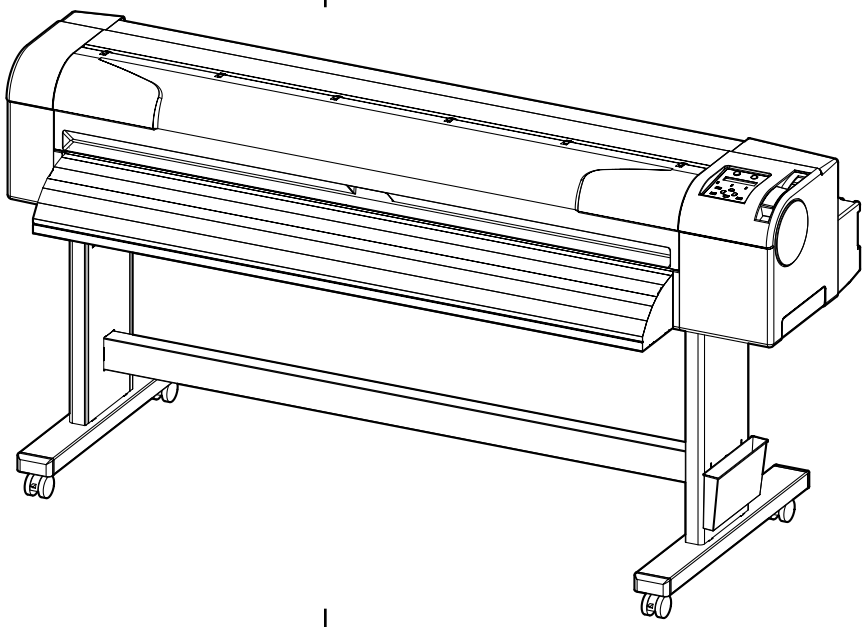
MUTOH

OPERATION MANUAL

Full-Color Inkjet Printer

ValueJet

VJ-1204



Read This Manual Before Using The Printer.

Rev.	VJ1204E-A-03

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By affixing the CE marking, the manufacturer, his authorized representative, or the person placing the product on the market or putting it into service ensures that the item meets all the essential requirements of all applicable EU directives and that the applicable conformity assessment procedures have been applied.

2. For Users in the United States

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This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

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2. The warranty shall not apply to any direct or indirect loss, or compensation for the loss due to the product that has been subject to misuse, neglect, or improper alternation.

About this Manual

1. Contents of the Manual

There are three manuals for this product.

Installation manual

Explains operating procedures along with unpacking, installation and preparation before use.

Quick Reference (this manual)

Operation Manual

Provides information regarding preparation before using the product, directions for daily use, and useful functions.

2. Purpose and Target Readers

This manual explains preparations before use and operation procedures for MUTOH Full Color Ink Jet Printer VJ-1204.
This manual is prepared for the owners and operators of this printer.
Before using this printer, fully understand the contents and directions in this manual.

3. Manual Configuration

Section	Description
1 Safety instructions	This chapter explains the installation of this printer, warning terms that operators need to know, caution items and warning labels on the printer main unit.
2 Product overview	This chapter explains the features of the printer along with the names and functions of each part.
3 Basic usage	This chapter explains how to handle this printer.
4 Daily maintenance	This chapter explains daily maintenance.
5 Troubleshooting	This chapter describes possible troubles during the use of this product and countermeasures.

NOTE

- "1 Safety instructions" to "3 Basic usage" must be read before using the printer.
- Read "4 Daily maintenance" through "5 Troubleshooting" as necessary.

4. Manual Notation

This section explains general cautions that must be followed in order to use this printer safely.

Warning	Meaning
WARNING	Used for dangerous situations where death or serious injury may be caused.
CAUTION	Used for dangerous situations that may cause slight or medium injury, or when all or parts of products are damaged.
NOTE	It is used for special cautions and for information that needs to be emphasized.
TIP	Indicates useful tips for operating or understanding the printer.
	Indicates "prohibited" operations.
	Indicates required operations.
☞	Indicates reference pages in this manual.

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1 Safety instructions

This chapter explains the installation of this printer, warning terms that operators need to know, caution items and warning labels on the printer main unit.

WARNING

- **When installing and operating this printer, be sure to follow the directions and warnings in this book.**

1.1 Types and meanings of warnings

There are three steps of classification according to the degree of risk or accident for the warnings in the Operation Manual and warning labels on the printer itself.
Understand the meanings of the following warning terms and follow the contents (instructions) in this manual.

Warning	Meaning
WARNING	Used for dangerous situations where death or serious injury may be caused.
CAUTION	Used for dangerous situations that may cause slight or medium injury, or when all or parts of products are damaged.
NOTE	It is used for special cautions and for information that needs to be emphasized.

1.2 Important safety instructions

This section explains general cautions that must be followed in order to use this printer safely.

WARNING

Do not install this printer in the following places. It may cause an injury if the printer falls down.
- On a shaky stand
- Slanting location
- Places where vibration of other machines etc. is transmitted

Do not stamp on this printer or place heavy things on top of it. It may cause an injury if the printer falls down.

Do not block the vent by covering the printer with cloths, such as a blanket or tablecloth. If the vent is blocked, heat may accumulate inside the printer and it may cause fire.

Do not install the printer where it is humid or dusty. It could lead to an electric shock and fire.

Do not use a damaged power cable. It could lead to an electric shock and fire.

Do not take out or insert the power plug with a wet hand. This could lead to an electric shock.

Do not connect an earth wire to the following places.
- Gas pipe
  There is a possibility of ignition and explosion.
- Earth wire of telephone cables and lightning rods
  Heavy current might flow whenever lightning strikes.
- Water pipe and faucet
  The earth might not work if a plastic pipe is connected in the middle of the metal pipe.

Do not store combustible materials on the platen while performing the heater operation. It could lead to fire.

Do not spill flammable liquid over the platen. This could lead to fire.

Do not insert or drop metal or flammable objects into the printer through openings such as a fresh air inlet. It could lead to an electric shock or fire.

If foreign substances or liquids such as water entered the printer, do not use the printer as it is. It could lead to an electric shock or fire. Immediately turn OFF the power switch, disconnect the power plug from the electric socket, and contact your local MUTOH dealer.

Wire the various cords as directed in the Operation Manual. Mistaken wiring could cause fire.

Be sure to use the power cable supplied with the printer. Using other power cables can cause an electric shock or fire.

Make sure to use only the specified power supply (AC 100 V - 120 V or AC 220 V - 240 V). If a power supply other than the specified voltage is used, it could cause an electric shock and fire.

Take power for the printer directly from the power socket (AC 100 V - 120 V or AC 220 V - 240 V). Do not use multiple plugs on the same socket. This could generate heat and might cause fire.

Be sure to use a dedicated power socket with earth wire for the power supply, and connect it to the earth wire. If the earth wire is not connected, an electric shock or fire may occur.

The waste fluid from the printer is industrial waste. Proper waste fluid disposal according to industrial waste disposal laws and ordinances of your local government is required. Consign disposal of waste fluids to a specialized processor.

⚠ CAUTION

Pay attention to the following points when handling power cable.
- Do not do anything forcefully on the power cable.
- Do not put heavy objects on the power cable.
- Do not bend, twist or pull the power cable by force.
- Do not route the power cable near heating appliances.

Pay attention to the following points when handling the power supply plug. Any mishandling of the power cable could cause a fire.
- Make sure that no foreign substances such as dust etc. are stuck to the power plug.
- Make sure that the power plug is firmly inserted to the edge of the power socket.

When handling ink cartridges, pay attention so that ink does not get into your eyes or stick to your skin. If ink gets into your eyes or sticks to your skin, immediately wash it off with water. Failing to do so might cause irritation or light inflammation of eyes. In case of any abnormality, consult a physician immediately.

Do not disassemble ink cartridges. If disassembled, there is a possibility that ink might come into contact with eyes or skin.

Do not operate the media loading lever during initial operation. The print head portion may touch the pressurizing roller portion, and cause a malfunction.

Do not touch the media guide during printing. It is hot and may cause a burn.

Do not touch the media feed slot, platen or media guide while heaters are operating. They are hot and may cause a burn.

Do not use volatile solvents such as thinner, benzene, or alcohol. These solvents could cause damage to the paint.

Be careful that no moisture enters the printer. There is a possibility that the electric circuit inside the printer is short circuited.

Do not open covers attached using screws under any circumstances. This may cause an electric shock or a malfunction.

While cleaning the cleaning wiper
- Do not touch the cleaning wiper and head cap unit.
  Head cleaning may not be performed correctly because of oil from your hands.
- Make sure to wipe the print head with a dry poly-knit wiper.
  A wet poly-knit wiper may cause the print head to clog.

Do not slant the printer, prop it against a wall or turn it upside down. There is a possibility that ink inside the printer may leak. Moreover, normal operation after shifting (to these positions) cannot be guaranteed.

When unpacking and moving the printer to an installation point, be sure to have the following number of personnel.
- VJ-1204: three or more

When taking this printer out of the package box, make sure to remove the vinyl sheet and hold the handles on the side of the printer. If the printer is lifted with the vinyl sheet attached, there is a possibility that the printer falls slipping from hands and gets damaged.

When installing the stand to the printer, make sure to have the following number of personnel.
- VJ-1204: three or more

While installing the stand, be sure to turn OFF the power and pull out the power plug. It could lead to an electric shock.

When you do not use the printer for a long period, make sure to pull out the power plug from the power socket for safety.

Make sure to connect an earth wire to the earth connection that meets the following standards.
- Earth terminal of power socket
- Earth wire with copper plate which is buried at 650 mm or more, deep in the ground.

Load roll media on an even surface such as a desk. If you load roll media with the scroller standing vertical, there is a possibility that the scroller might get damaged.

Keep the work area well-ventilated. This prevents fire, and stops operators from feeling sick from bad air.

When printing is finished, the media guide is at high temperature. Wait until the media guide cools off.

Pay attention to the following points when you cut roll media. Mishandling the razor blade may cause a cut on your finger or hand.
- When you hold media, do not place your finger on the media cut groove.
- Move the razor blade along the media cut groove.

When cleaning the printer, be sure to turn OFF the power and disconnect the power plug.

Move the printer maintaining a horizontal position.

1.3 Warning labels

This section explains the handling of warning label, pasting location and types.
Warning labels are attached to parts of the printer that need special caution. Understand the locations and the descriptions of the danger associated with each label before operating the printer.

1.3.1 Handling the warning labels

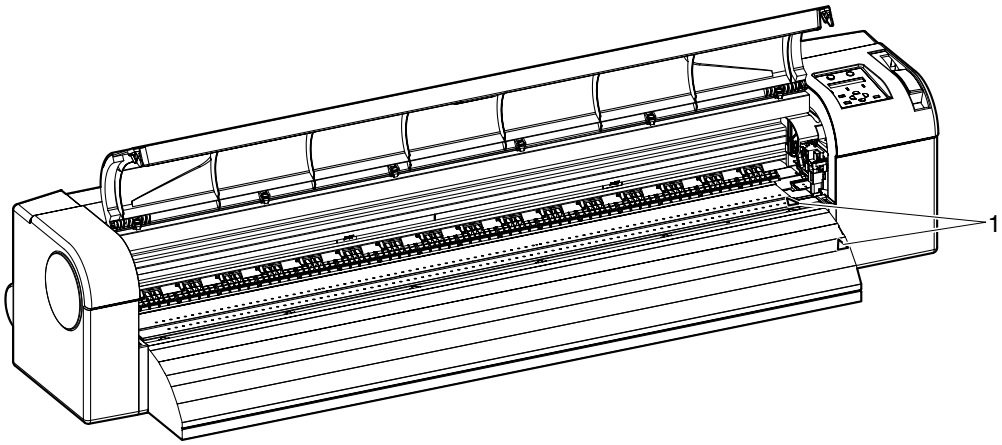
When handling the warning labels, be careful about the following points.

NOTE

- Check whether all the warning labels can be read. If the letters or illustrations on the label are not clear, remove the dirt from the label.
- Use cloth, water and neutral detergent for removing dirt from the warning label. Avoid either organic solvents or gasoline.
- It is necessary to replace the labels if they are damaged, lost or illegible.
  If the warning labels have to be replaced, contact your local MUTOH dealer.

1.3.2 Location and type of warning labels

Pasting locations of the warning labels are shown in the following figure.



No.	Types of warning labels
1	

1.4 Operation procedure labels

Handling of operation procedure label, pasting location and type are explained.
When handling the operation procedure labels, be careful about the following points. The labels contain the matters with which the operator should be particularly careful while operating it.

1.4.1 Handling the operation procedure labels

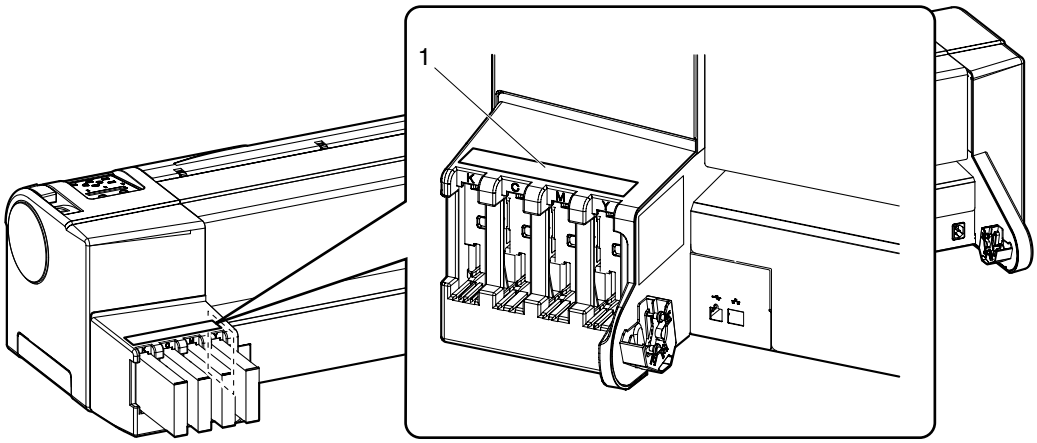
Be careful about the following points, while handling the operation procedure label.

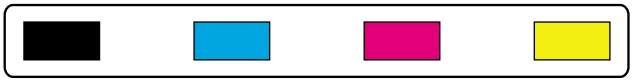
NOTE

- Check whether the operation procedure label can be read. If the letters or illustrations on the label are not clear, remove the dirt from the label.
- Use cloth, water and neutral detergent for removing dirt from the operation procedure label. Avoid either organic solvents or gasoline.
- It is necessary to replace the label if it is damaged, lost or illegible.
  If the operation procedure label has to be replaced, contact your local MUTOH dealer.

1.4.2 Location and type of operation procedure labels

The pasting location of the operation procedure label is shown in the following figure.



No.	Types of operation procedure labels	Reference
1		☞6.1.1 Replacing ink cartridges

2 Product overview

This chapter explains the features of this printer along with the names and functions of each part.

2.1 Features

This section explains the main features of the printer.

(1) High-speed output

The new type print head achieves high-speed output.
It offers printing widths up to 1219 mm at one-way printing and 1200 mm at two-way printing for VJ-1204.

(2) Wide variety of compatible media

The head is adjustable to two levels of height and compatible with media between 0.08 mm and 1.0mm in thickness.

(3) Vibrant color reproduction

Four colors of ink are used for printing in order to reproduce sharp and vivid colors. This printer uses 220 ml large-capacity solvent ink cartridges with dedicated IC chips. This cartridge can control ink quantity for printing, improving productivity.
Use of variable dots can also improve color reproduction.

(4) Multi-heater

The media heating system developed for PJ-NX series is arranged for solvent ink. Heaters are installed at three locations (pre, platen, after) allowing solvent ink to fix better on media and dry quickly.

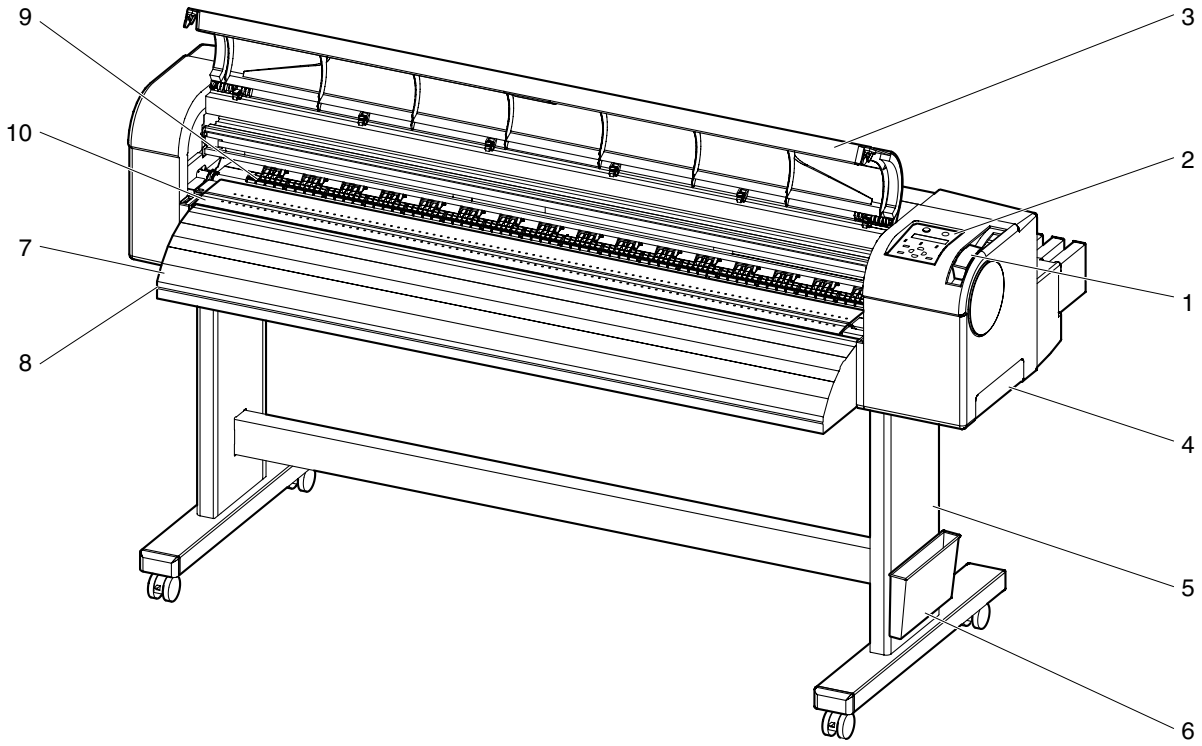
(5) Effective use of media

A JOG feature is provided to allow setting of the print starting position as required. Printing can be performed on media that has already been printed on. This allows effective use of left margins.

2.2 Names of parts and functions

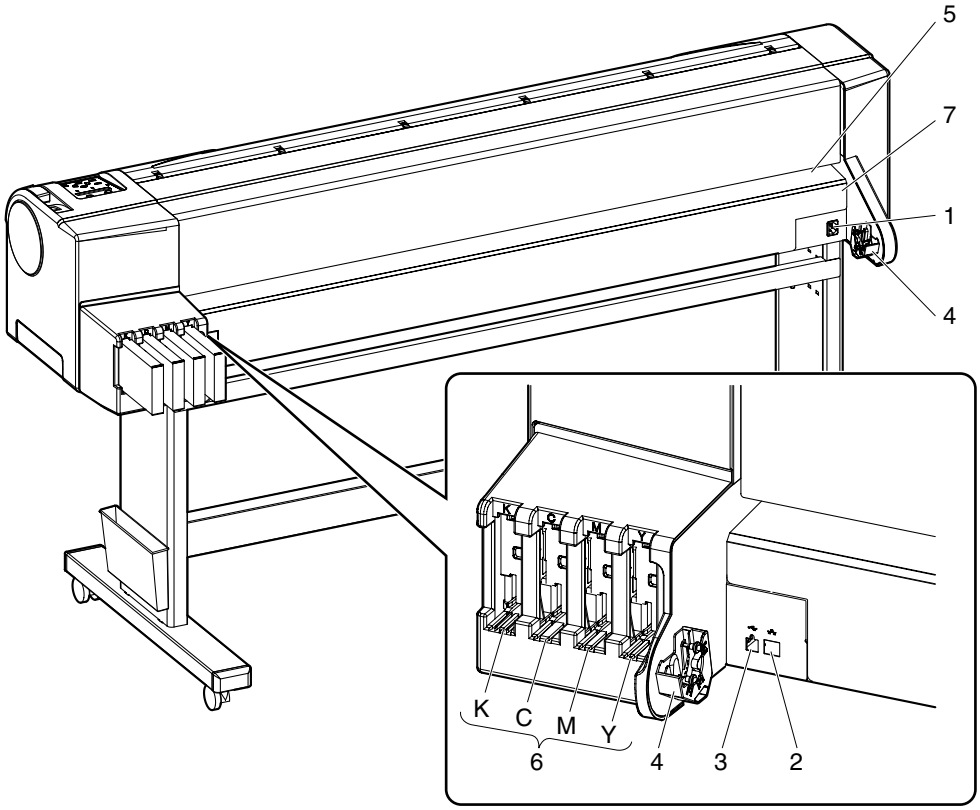
This section explains the names and functions of each part.

2.2.1 Front section



No.	Name	Function
1	Media loading lever	Used for fixing or releasing media.
2	Operation panel	Operation condition setting, printer display and various function settings are performed.
3	Front cover	Used for preventing a user from coming in contact with the driving mechanism during the printer operation. Opened and closed when media is set or jammed. It is normally closed.
4	Waste fluid box	Used for collecting waste ink discharged from the printer.
5	Stand	Used when installing the printer on a level floor.
6	Book holder	Quick reference manual etc. can be stored here.
7	Media guide	Used for feeding media smoothly when the media is set or printed. The heater (after heater) to dry ink is installed.
8	Media cut groove	Used to cut media straight.
9	Pressurizing rollers	Installed inside of the front cover. Press and hold the media when printing.
10	Platen	Installed inside of the front cover. The heater (platen heater) to dry ink is installed.

2.2.2 Rear section



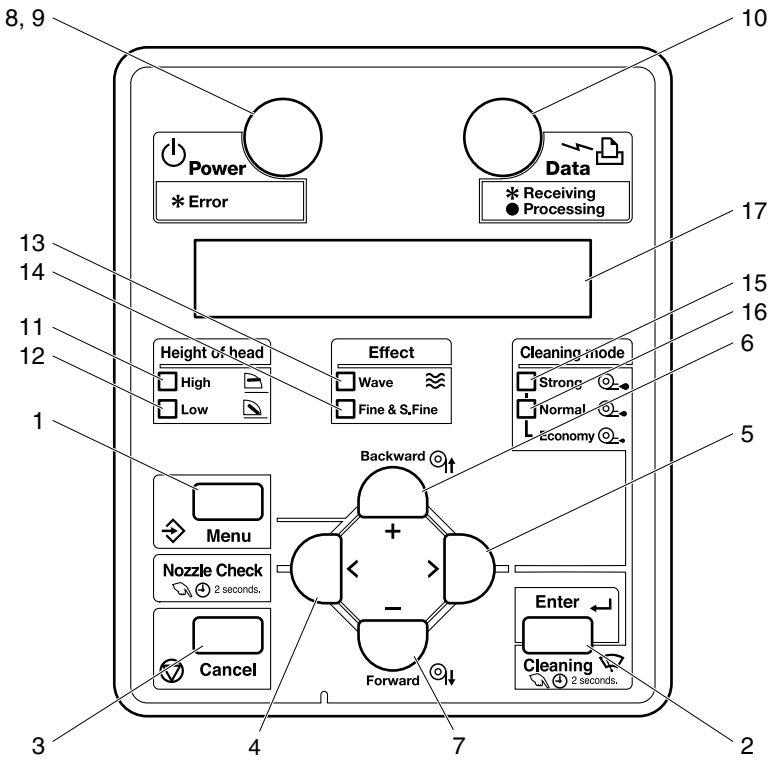
No.	Name	Function
1	AC inlet	Used for connecting the power cable.
2	Network interface connector	Connects a network interface cable.
3	USB connector	Not used for this printer.
4	Scroller receiver	Set the scroller when roll media is used.
5	Media feed slot	Used for feeding media.
6	Ink cartridge slot	Insert the ink cartridge.
7	Media guide	Used for feeding media smoothly when the media is set or printed. The heater (pre heater) to warm media is installed.

2.2.3 Operation panel

Used for setting operation conditions, display of printer status and various functions.
Names of each operation key and status display along with the functions are explained.

TIP

- Refer to the following for details regarding the operation method of the operation panel.
  - When performing menu setting from the operation panel: ☞4.3 Menu setups on the operation panel
  - When performing various operations in the operation panel: ☞4.4 Operating from the operation panel



(1) Operation keys

NOTE

- The operation keys are assigned with different functions and names depending on printer status (Normal or Setup menu display). For details about printer status, refer to "2.3 Printer status".

No.	Name	Normal	Setup menu display
1	[Menu] key	Shifts to the Setup menu.	Shifts from Setup menu display to Normal.

No.	Name	Normal	Setup menu display
2	[Enter] key	—	• The menu to set is selected and it shifts to the next hierarchy. • The setting is determined and saved.
	[Cleaning] key	Press and hold this key for two seconds or more to clean the print head.	—
3	[Cancel] key	• When printing: Forcefully terminates printing and deletes one file of the remaining data. • When receiving or analyzing: Deletes data that are already received and analyzed, and delete the next data.	• Returns to the previous menu hierarchy. Changes made in the setting are discarded. • Shifts from Setup menu display to Normal.
4	[<] key	—	The following menu changes the set value. • Origin menu
	[Nozzle Check] key	Press and hold this key for two seconds or more to perform Nozzle Check printing.	—
5	[>] key	Sets Cleaning Mode. • The lamp of Cleaning Mode that you set lights up in green.	Down the menu level in the directory tree.
6	[Backward↑] key	Media is fed in the reverse direction.	—
	[+] key	—	• Changes to the previous item in the displayed menu. • The setting is changed to the forward direction. • The numeric value is increased during numerical input.
7	[Forward↓] key	Media is fed in the forward direction.	—
	[–] key	—	• Changes to the previous item in the displayed setting. • The setting is changed to the reverse direction. • The numeric value is decreased during numerical input.
8	[Power] key	Turns the printer ON or OFF.	Turns the printer ON or OFF.

(2) Display section

No.	Name	Color	Status	Description
9	Power lamp	Green	Lamp ON	Power ON.
			Lamp blinks	An error has occurred. Error content is displayed on the LCD.
			Lamp OFF	Power OFF.

No.	Name	Color	Status	Description
10	Data lamp	Orange	Lamp ON	• Analyzing received data. • Under printing.
			Lamp blinks	Receiving data.
			Lamp OFF	Data is not received and analyzed.
11	High lamp	Green	Lamp ON	The head height is set to High.
			Lamp OFF	The head height is set to Low.
12	Low lamp	Green	Lamp ON	The head height is set to Low.
			Lamp OFF	The head height is set to High.
13	Wave lamp	Green	Lamp ON	The Effect menu is set to Wave.
			Lamp OFF	The Effect menu is set to None.
14	Fine &S.Fine lamp	Green	Lamp ON	The Effect menu is set to Fine or Super Fine.
			Lamp OFF	• The Effect menu is set to Wave. • When the Wave lamp is turned OFF, the Effect menu is set to None.
15	Long lamp	Green	Lamp ON	• Cleaning Mode is set to Long. • When the Normal lamp is also turned on, Cleaning Mode is set to Short.
			Lamp OFF	Cleaning Mode is set to Normal.
16	Normal lamp	Green	Lamp ON	• Cleaning Mode is set to Normal. • When the Long lamp is also turned on, Cleaning Mode is set to Short.
			Lamp OFF	Cleaning Mode is set to Long.
17	LCD display section	—	—	Displays operation status of the printer or an error message.

TIP

- When an error requiring restart (fatal malfunction for the printer operation) occurs, all lamps blink with an alarm.
  ☞7.2.5 Error requiring restart
  If the error persists even when the malfunction is fixed, contact your local MUTOH dealer.

2.3 Printer status

This chapter explains printer status.

2.3.1 Normal

Printing is possible when media is loaded.
The various functions for printing can be performed on the operation panel.

2.3.2 Setup menu display

Various settings regarding printing can be made from the operation panel.
The various functions for printing can be performed on the operation panel.
Display contents in the LCD monitor of the operation panel are as follows.

2.3.3 Changing printer status

Follow the procedure below and change plotter status.

(1) Normal → Setup menu display

Press the [Menu] key on the operation panel when the printer is Normal.

- "Menu 1: Setup>" is displayed on the operation panel and the display shifts to the Setup menu.

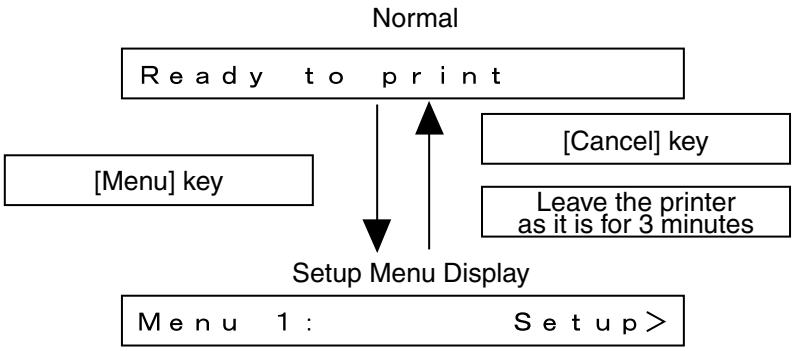
NOTE

- For details regarding the Setup menu, refer to "4.3 Menu setups on the operation panel".

(2) Setup menu display → Normal

When the plotter is at the Setup menu display, perform either of the following operations to shift the operation panel to the Normal display.

- Press the [Cancel] key on the operation panel.
- In the Setup menu, leave the keys untouched for three minutes.



NOTE

- For details on Status message, refer to "7.2.1 Status messages".

3 Before using

This chapter explains necessary steps before using the printer.

3.1 Power cable connection

This section explains power cable connection.

WARNING

- **Be sure to use the power cable supplied with the printer. Using other power cables can cause an electric shock or fire.**
- **Do not use a damaged power cable. It could lead to an electric shock and fire.**

CAUTION

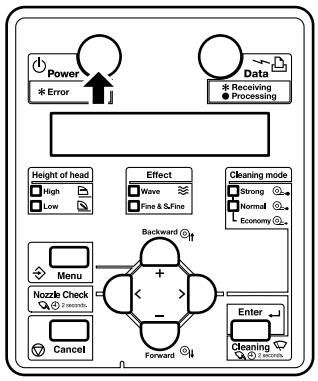
- **Pay attention to the following points when handling power cable.**
  - **Do not do anything forcefully on the power cable.**
  - **Do not put heavy objects on the power cable.**
  - **Do not bend, twist or pull the power cable by force.**
  - **Do not route the power cable near heating appliances.**

NOTE

- Contact your local MUTOH dealer in case of power cable damage.

Follow the procedure below to install the power cable.

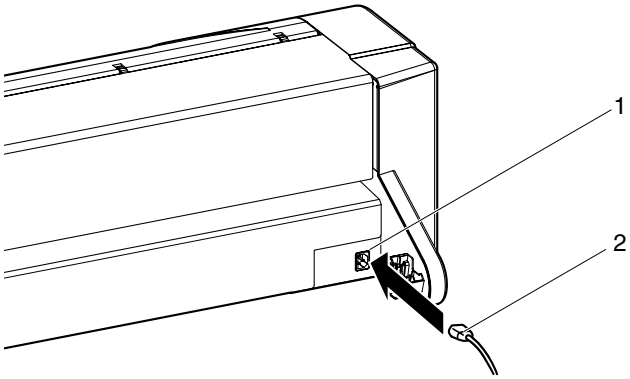
1. Make sure that the printer is turned OFF.



NOTE

- The power is ON when the [Power] key of the operation panel is pressed in. Press the key once again to turn OFF the power.

2. Connect the power cable to the AC inlet on the back of the printer.



No.	Name
1	AC inlet
2	Power cable

3. Insert the power cable plug firmly in the socket.

WARNING

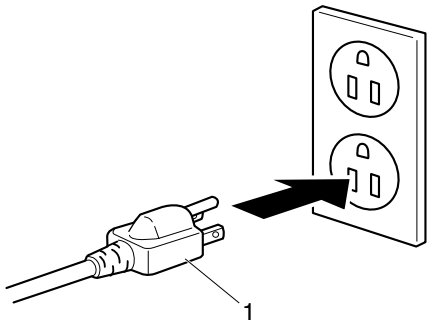
- **Do not take out or insert the power plug with a wet hand. This could lead to an electric shock.**
- **Make sure to use only the specified power supply (AC 100 V - 120 V or AC 220 V - 240 V). If a power supply other than the specified voltage is used, it could cause an electric shock and fire.**
- **Take power for the printer directly from the power socket (AC 100 V - 120 V or AC 220 V - 240 V). Do not use multiple plugs on the same socket. This could generate heat and might cause fire.**
- **Make sure to use a dedicated power socket with an earth terminal for the power supply, and connect it to an earth terminal. If the earth wire is not connected, an electric shock or fire may occur.**
- **Do not connect an earth wire to the following places.**
  - **Gas pipe**
    There is a possibility of ignition and explosion.
  - **Earth wire of telephone cables and lightning rods**
    Heavy current might flow whenever lightning strikes.
  - **Water pipe and faucet**
    The earth might not work if a plastic pipe is connected in the middle of the metal pipe.

CAUTION

- **Pay attention to the following points when handling the power supply plug. Any mishandling of the power cable could cause a fire.**
  - **Make sure that no foreign substances such as dust etc. are stuck to the power plug.**
  - **Make sure that the power plug is firmly inserted to the edge of the power socket.**
- **When you do not use the printer for a long period, make sure to pull out the power plug from the power socket for safety.**
- **Make sure to connect an earth wire to the earth connection that meets the following standards.**
  - **Earth terminal of power socket**
  - **Earth wire with copper plate which is buried at 650 mm or more, deep in the ground.**

NOTE

- Contact the retail outlet of purchase if the earth connection cannot be established, or if the earth connection is not given.
- When the power supply of the printer is ON, do not pull out the power cable from the power socket.
  Whenever the plug is pulled out from the power socket, allow one minute or more before inserting the plug in the power socket again.



No.	Name
1	Power plug

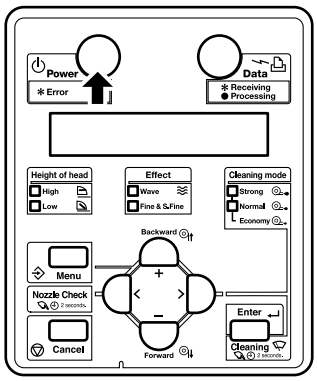
3.2 Turning the power ON/OFF

This section explains how to turn the printer ON/OFF.

3.2.1 Turning the power ON

Follow the procedure below to turn the power ON.

1. Press the [Power] key on the operation panel to turn ON the printer.
   - The Power lamp on the operation panel lights up in green.



   - The printer starts initial operation.
   - When the initial operation is complete, the printer enters Normal.

NOTE

- If there is a problem during initial operation, the printer displays a message on the operation panel and may stop operating.
  If operation stops, refer to "7 Troubleshooting" and deal with the problem.

3.2.2 Turning the power OFF

Follow the procedure below to turn the printer OFF.

1. Verify the following regarding the operational condition of the product.
   - Printing or other operations are not in progress.
   - The operation panel display is Normal.
   - The Low lamp on the operation panel lights up in green.

   NOTE

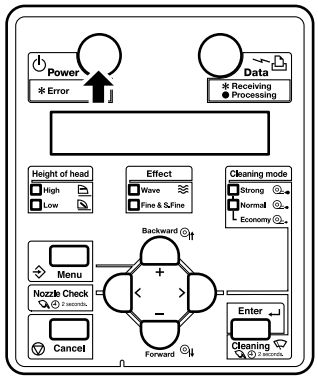
   - If the High lamp on the operation panel lights up in green, the head height is set to High. Return the head height to Low before turning the power OFF.
     ☞4.2.5.2 When returning the print head to the original position

2. Press the [Power] key on the operation panel to turn OFF the printer.

   NOTE

   - If the operation panel is in the following status, the power is ON.
     - The [Power] key is pressed in.
     - The Power lamp lights up in green.

     Press the key once again to turn OFF the power.



- The printer starts the procedure to turn the power OFF.
- "Power Off" is displayed on the operation panel.

NOTE

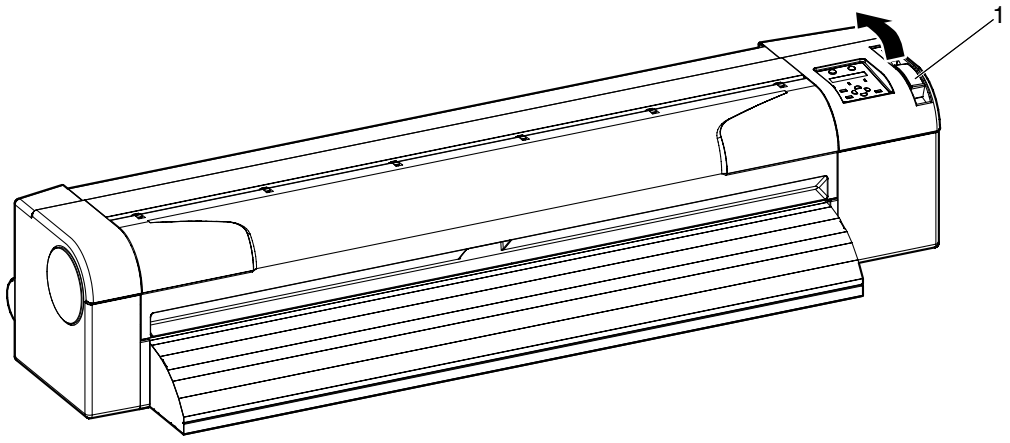
- If the head height is set to High, "Change Head Gap Low" is displayed on the operation panel and the procedure to turn the power OFF stops.
  To restart the procedure, return the head height to Low.
  ☞4.2.5.2 When returning the print head to the original position

- All the lamps on the operation panel and the LCD monitor are turned OFF.
- The printer automatically turns the power OFF.

NOTE

- If there is a problem during turning OFF operation, a message is displayed on the operation panel and the printer may stop operating.
  If operation stops, refer to "7 Troubleshooting" and deal with the problem.
- After turning OFF the printer, wait for 10 seconds or longer to turn it ON again.

3. When not using the printer for a long period, push the media loading lever to the back.



No.	Name
1	Media loading lever

3.3 Installing ink cartridges

This section describes the replacement time and steps of ink cartridges.

⚠ CAUTION

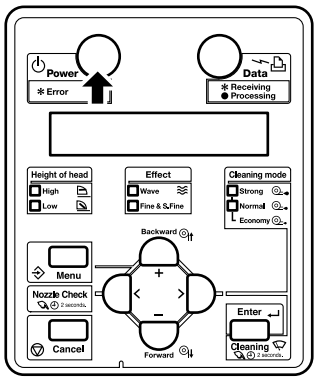
- **When handling ink cartridges, pay attention so that ink does not get into your eyes or stick to your skin. If ink gets into your eyes or sticks to your skin, immediately wash it off with water. Failing to do so might cause irritation or light inflammation of eyes. In case of any abnormality, consult a physician immediately.**
- **Do not disassemble ink cartridges. If disassembled, there is a possibility that ink might come into contact with eyes or skin.**

NOTE

- When refilling ink, use original manufacturer's ink cartridge.
  This printer is designed to use genuine ink cartridges. If you use ink cartridges which are not produced by the original manufacturer,
  - Printing might become blurred and the end of the ink in the cartridge might not be detected correctly.
  - Any problems caused by using an ink cartridge other than those recommended above will not be covered by the warranty, and repair expenses will be paid by the customer.
- Refer to the following for types and details of ink cartridges.
  ☞8.3 Options/Supply list
- Do not give ink cartridges strong shakes. Doing so may cause ink leakage.
- Do not disassemble ink cartridges. A disassembled ink cartridge cannot be used.
- Make sure to use a dedicated cleaning fluid (model No.: VJ-MSINK3-CL220).
- Before installing the ink cartridge, shake it gently.
  Doing so will preserve print quality.
- When an ink cartridge is moved from a cold place to warm place, keep the ink cartridge for three hours or more in the new printing environment before printing.
- Do not insert or remove an ink cartridge more than 10 times.
  If the ink cartridge is inserted or removed 10 times or more, it cannot be used even if there is some remaining ink inside.
- A dedicated smart chip is included with the ink cartridge for this printer.
  If you insert or remove the ink cartridge in the following situations, information contained in the smart chip will be damaged and the ink cartridge cannot be used.
  - During printing
  - For a few seconds after inserting the ink cartridge

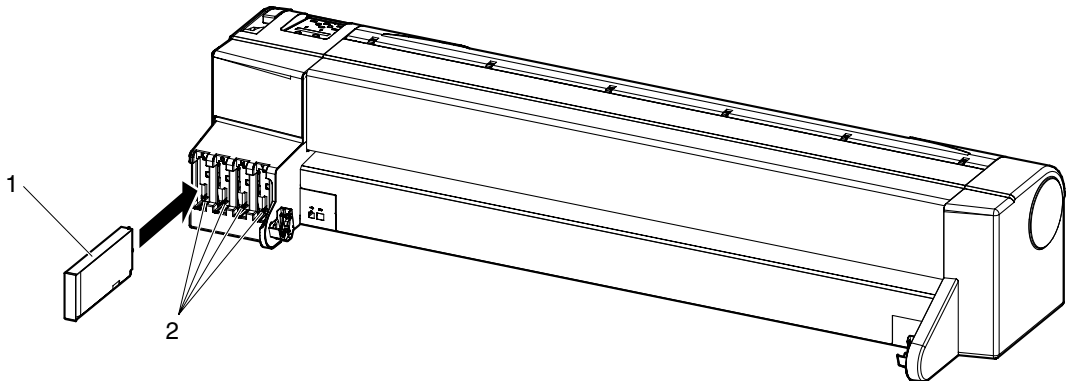
Follow the procedure below to install the ink cartridge.

1. Turn the unit ON.



- The printer starts the initializing operation.
- After the initial operation is compete, "Insert CleaningCart." is displayed on the operation panel.

2. Take a cleaning cartridge out of the bag.
3. Install the cleaning cartridge into the ink cartridge slot.
   - Keep the ▲ mark of the cleaning cartridge facing up and insert it into the slot of the printer.
   - Insert the cleaning cartridge all the way to the end of the slot.



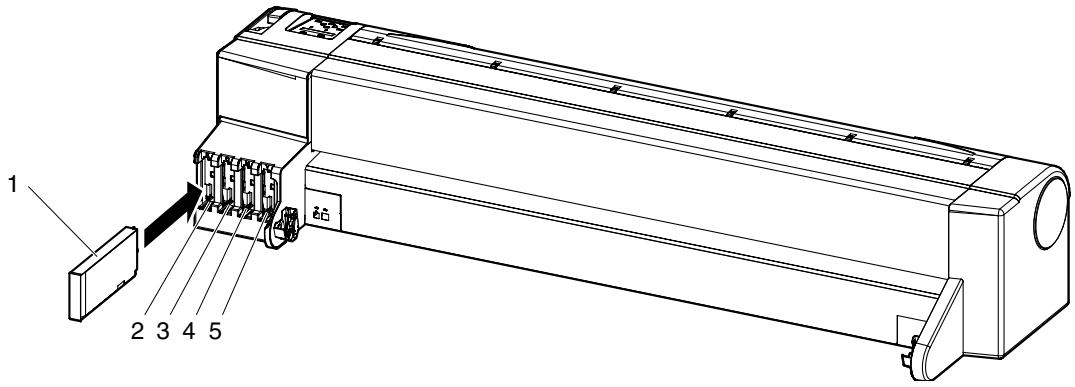
No.	Name
1	Cleaning cartridge
2	Ink cartridge slots

   - The printer starts filling cleaning fluid.

4. After the cleaning fluid is filled, take out the cleaning cartridge.
   - "Busy-Washing" is displayed on the operation panel and the printer starts cleaning the print head.
   - After head cleaning is complete, "Insert InkCartridges" is displayed on the operation panel.

5. After cleaning the print head is complete, take out the ink cartridge from the bag and shake it gently two to three times.

   - Slots for ink cartridges are specified depending on the colors of the ink cartridge. Match the mark on each slot with the color of the ink cartridge.
   - Keep the ▲ mark of the ink cartridge facing up and insert it into the slot of the printer.
   - Insert the ink cartridge all the way to the end of the slot.



No.	Name
1	Ink cartridge
2	Ink cartridge slot K
3	Ink cartridge slot C
4	Ink cartridge slot M
5	Ink cartridge slot Y

   - "Ink Refill **%" is displayed on the operation panel and ink replenishment starts.
   - Ink replenishment takes about 4 minutes. Ink filling operation and pause operation are repeated during the ink replenishment.
   - When "100%" is displayed, the ink replenishment is complete.

NOTE

- Do not perform the following operations during ink filling.
  - Do not turn the printer OFF.
  - Do not unplug the power cable.
  - Do not open the front cover.
  - Do not push the media loading lever backward.

   - After the ink replenishment is complete, "Media End" is displayed on the operation panel.

NOTE

- If the printer perform the nozzle check printing immediately after initial ink replenishment is complete, the following results may occur.
  - Printed lines become blurred.
  - The data is partially not printed.

  In such cases, follow "6.2.3 Head cleaning" and refill a small amount of ink. Then, check the printing result.

  If there is no improvement in the print result even after refill a small amount of ink, leave the printer unused for an hour or more. Then, refill a small amount of ink again and check the print result.

  If there is still no improvement, contact your local MUTOH dealer.

3.4 Setting media

This section explains how to set media and settings for each media type.

NOTE

- Refer to the following for details about handling media.
  ☞4.2 Media
- Refer to the following for types and details of recommended media.
  ☞4.2.1 Media type
  ☞8.3 Options/Supply list

3.4.1 Loading roll media

This section explains how to load roll media.
Use the exclusive scroller included with this printer for loading roll media.

NOTE

- The following roll media can be set on the scroller included with this printer.
  - Media tube diameter: three inches, outside diameter of media: 150 mm or less, weight: 19 kg or less

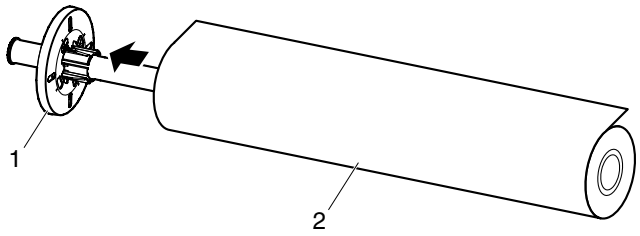
Follow the procedure below to load roll media.

⚠ CAUTION

- **Load roll media on an even surface such as a desk.**
  If you load roll media with the scroller standing vertical, there is a possibility that the scroller might get damaged.

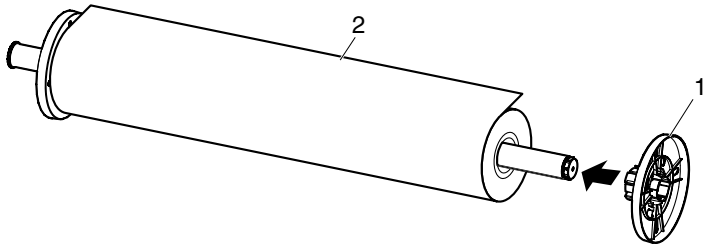
1. Load roll media to the scroller so that it is rolled in an anti clockwise direction when viewed from the fixed flange.

2. Push the roll media until its core hits the right edge of the fixed flange.



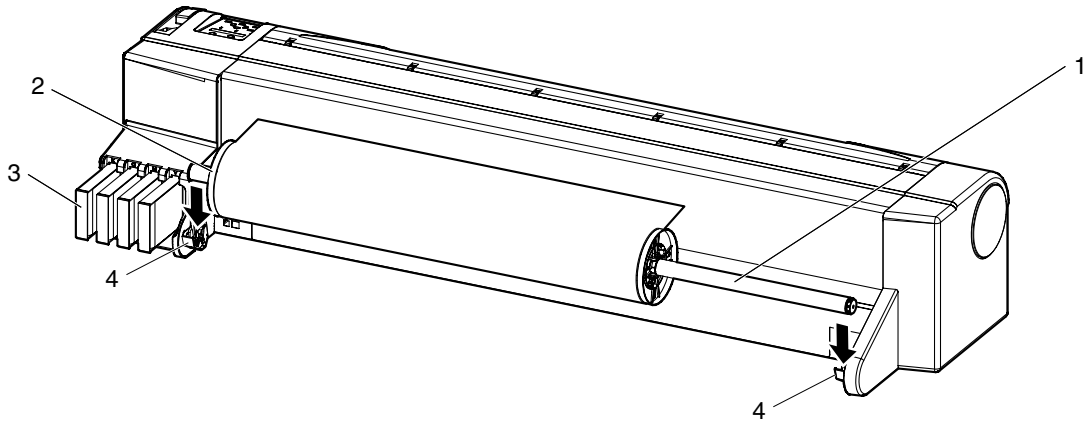
No.	Name
1	Fixed flange
2	Roll media

3. Attach the movable flange firmly to the roll media core.



No.	Name
1	Movable flange
2	Roll media

4. Set the scroller to the scroller receiver so that the fixed flange is on the side of the ink cartridge slot.



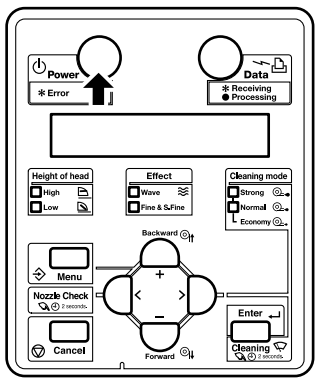
No.	Name
1	Scroller
2	Fixed flange
3	Ink cartridge slots
4	Scroller receiver

3.4.2 Setting roll media

This section explains how to set roll media.

Follow the procedure below to set roll media.

1. Turn the unit ON.

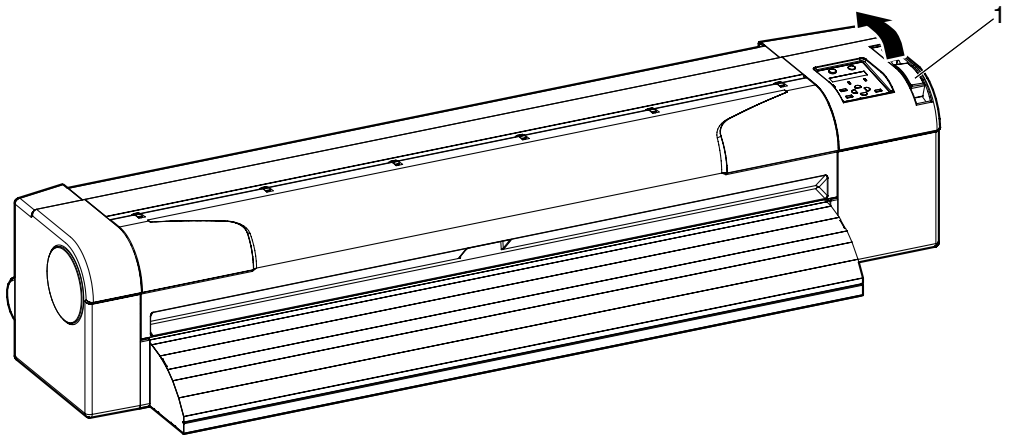


CAUTION

- **Do not operate the media loading lever during initial operation. The print head portion may touch the pressurizing roller portion, and cause a malfunction.**

- The printer starts the initializing operation.
- "Media End" is displayed on the operation panel.

2. Push the media loading lever to the back.



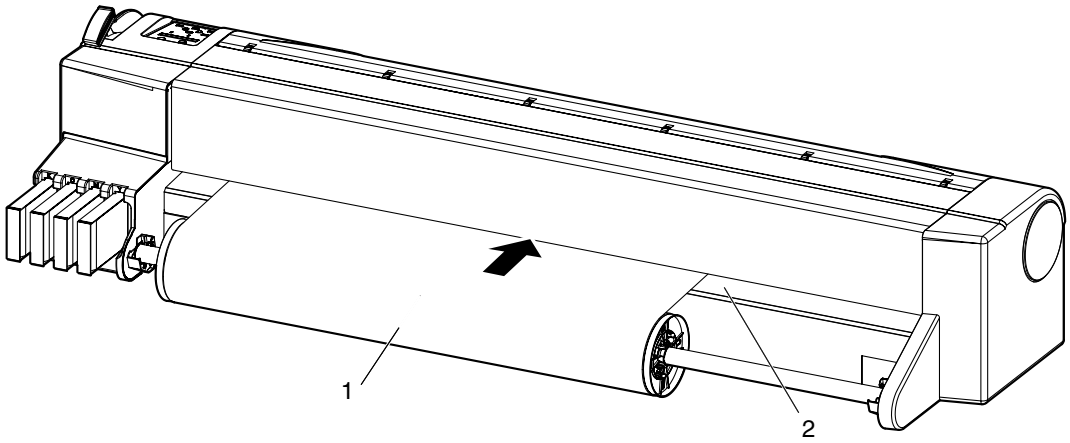
No.	Name
1	Media loading lever

- "Lever Up" is displayed on the operation panel.

3. Set the roll media to the media feed slot.

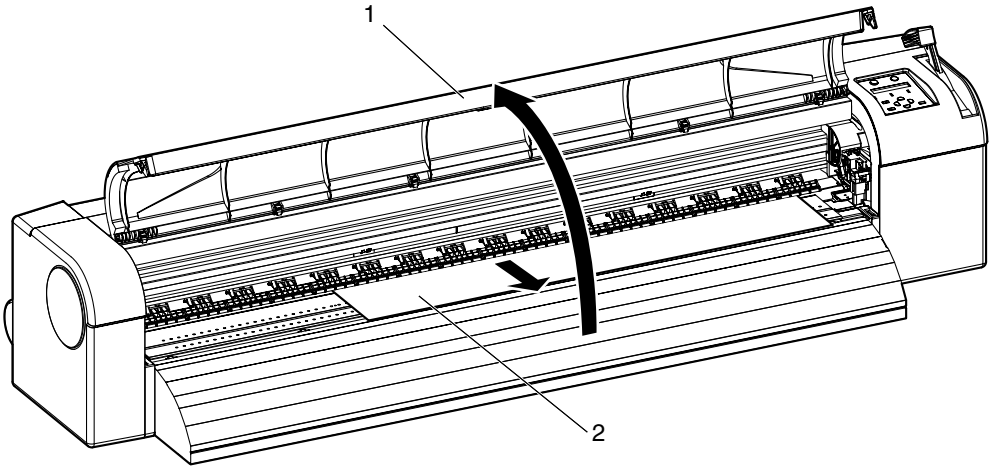
NOTE

- If the roll media end gets loose, roll up the media again and load it.



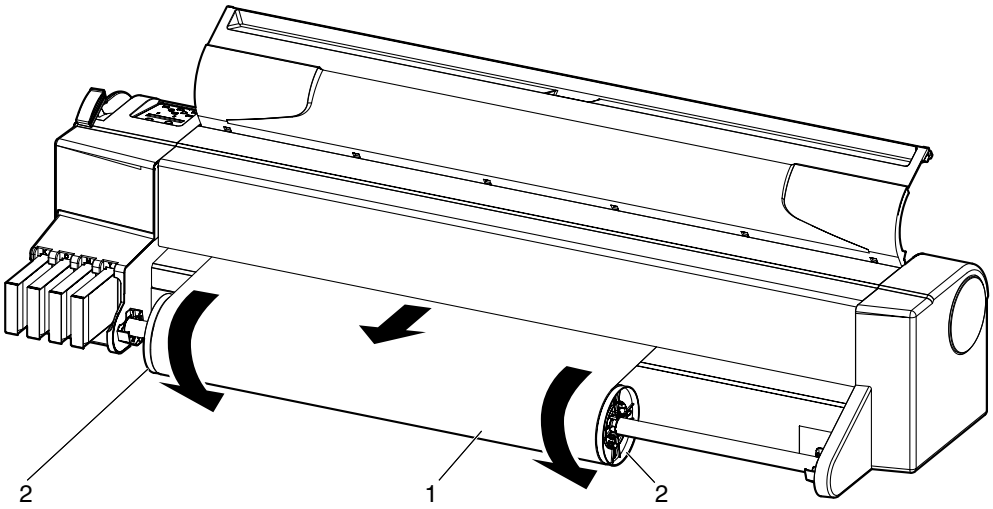
No.	Name
1	Roll media
2	Media feed slot

4. Open the front cover, and pull out the roll media.



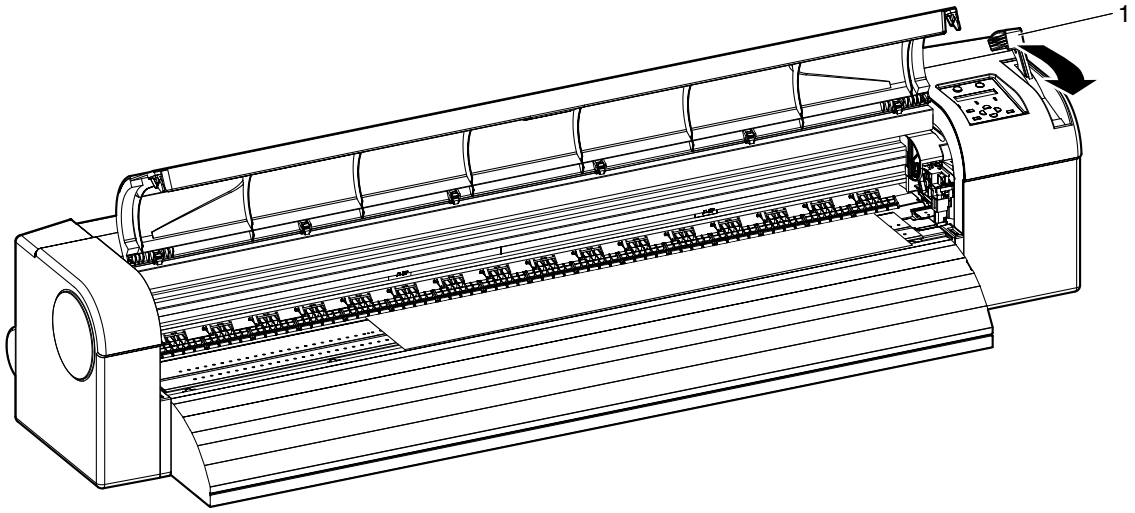
No.	Name
1	Front cover
2	Roll media

5. Holding the front edge of the roll media, roll it back using the scroller to remove a bend and slant.



No.	Name
1	Roll media
2	Scroller

6. Pull the media loading lever forward.

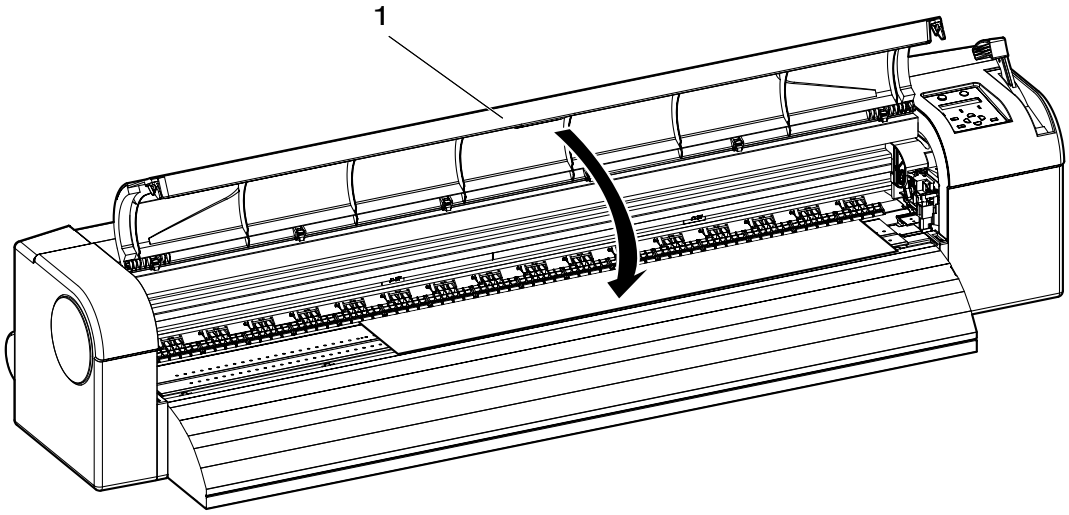


No.	Name
1	Media loading lever

NOTE

- When loading the new roll media, cut the front edge of the media if it is not straight.
☞4.4.3 Cutting media

7. Close the front cover.



No.	Name
1	Front cover

- The Media type setup menu is displayed on the operation panel.

TIP

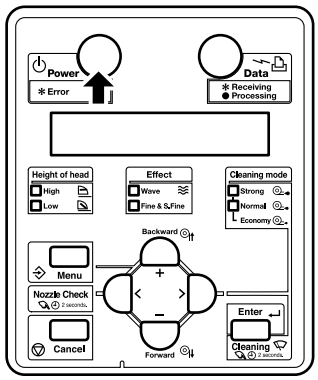
- For changing the media type, set the media type as shown in "3.4.3 Setting media type".

3.4.3 Setting media type

This section explains how to setup for the media type.

Follow the procedure below to set the media type.

1. Turn ON the printer and load media.



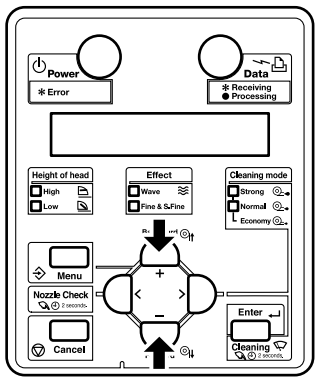
- After the media is loaded, the display shifts to the media type setup menu.

TIP

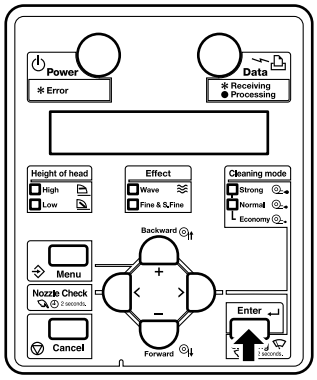
- Refer to the followings for media loading.

  ☞3.4.2 Setting roll media

2. Press the [+] key or [–] key to select the type of the loaded media.



3. Press the [Enter] key on the operation panel.

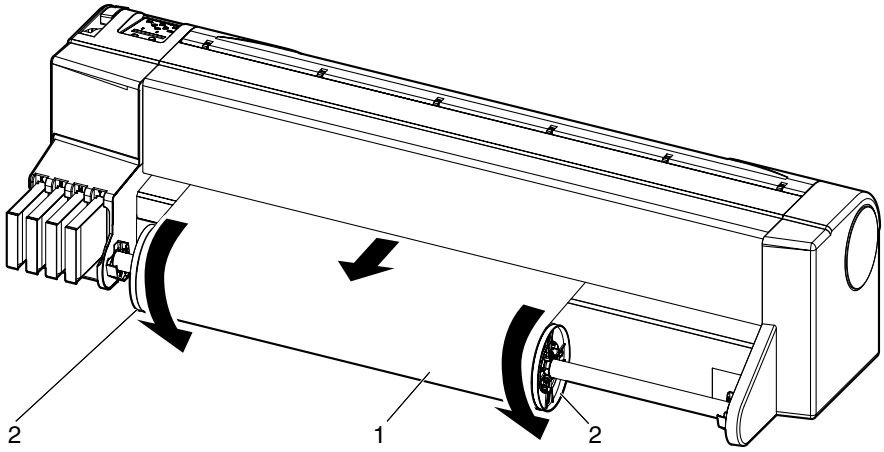


- The media type is set.
- "Media Initial" is displayed on the operation panel and media initial operation starts.

NOTE

- If the following operations are performed in the media type setup menu, the printer starts media initial operation without specifying a media type.
  - Pressing the [Cancel] key on the operation panel.
  - No keys on the operation panel are pressed for 10 seconds.

4. After media initial operation is complete, "Ready to Print" is displayed on the operation panel and the display shifts to Normal.
5. When using the roll media, wind back the roll media tightening with the scroller and the media slackness is tightened.



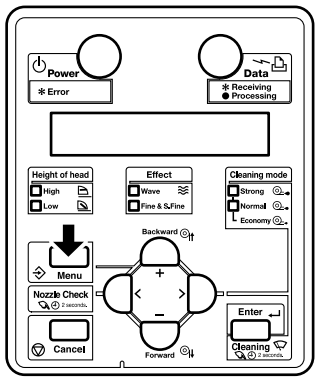
No.	Name
1	Roll media
2	Scroller

- This completes media loading.

3.5 Test print

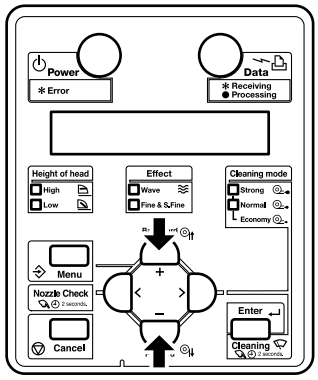
Follow the procedure below to perform Test printing to confirm that the printer works correctly.

1. Turn ON the printer and load the roll media.
   ☞3.4.2 Setting roll media
2. Confirm that the printer functions normally.
3. Display the Test print menu on the operation panel.
   a. Press the [Menu] key on the operation panel.

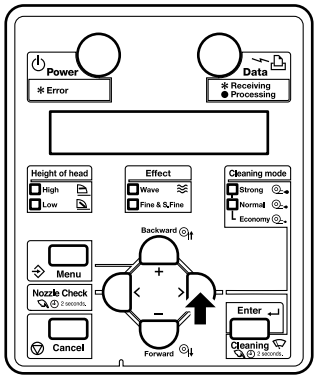


   - "Menu 1: Setup>" is displayed on the operation panel.
   - The operation panel shifts to the Setup menu display.

   b. Press the [+] key or [–] key to select "Menu2: Test Print>".



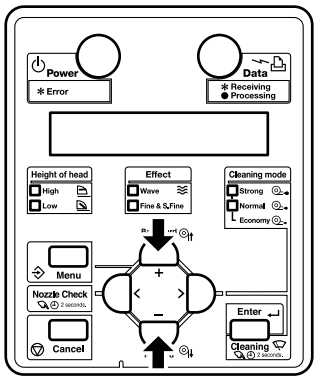
c. Press the [>] key on the operation panel.



- "Test1: Nozzle Check" is displayed on the operation panel.
- The display shifts to the Test print menu.
  ☞5.2 TestPrint Menu

4. Press the [+] key or [–] key on the operation panel to select an item for printing from the following items.

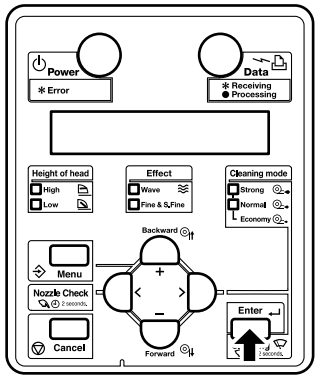
- Nozzle check
- Mode print
- SetUp List
- ALL SetUp List
- Palette



NOTE

- When "Banner 1" or "Banner 2" is set in the Print Mode menu, "PalettePrint" is not displayed on the test print menu.
  ☞5.2 TestPrint Menu

5. Press the [Enter] key on the operation panel.

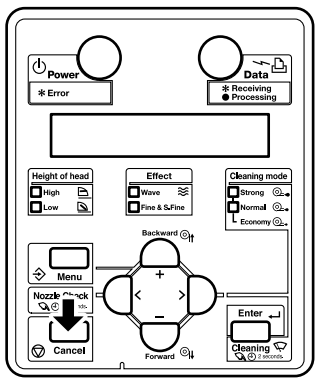


- Start performing Test Print for the selected item.

TIP

- Refer to the following for details on each of the print list items.
  ☞3.5.1 Nozzle check to 3.5.4 Palette print

6. Repeat step 4 to step 5 when performing test print for other items.
7. Press the [Cancel] key on the operation panel to exit from test print.



- The operation panel returns to Normal.
- Test printing is completed.

3.5.1 Nozzle check

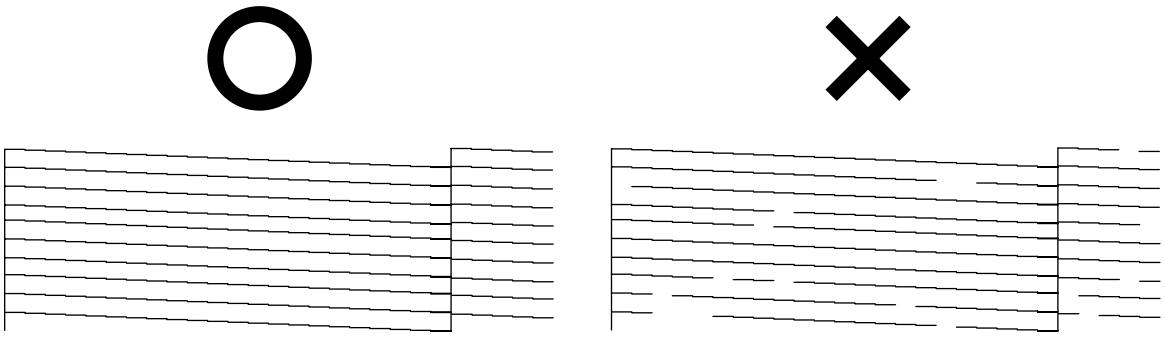
It is used to check whether there are any clogged heads, or missing or blurred prints.

NOTE

- If the nozzle check result indicates that the checked points are blurred or missing, clean the head.
  ☞6.2.3 Head cleaning
  Perform the nozzle check once again at the end of the work.

TIP

- Refer to the following for printing procedure.
  ☞3.5 Test print



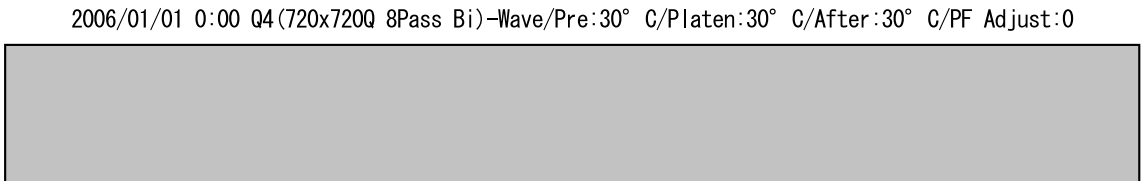
3.5.2 Mode print

Used to confirm the following printing conditions.

- Print Mode
- Effect
- Pre heater set temperature
- Platen heater set temperature
- Drier heater set temperature
- Adjustment value

TIP

- Refer to the following for printing procedure.
  ☞3.5 Test print



3.5.3 Setup print

Used to check the current setup of the printer.

NOTE

- Paste the setup print on this page.

TIP

- User media and print mode lists are printed only when "ALL SetUp List" is selected.
- Refer to the following for printing procedure.
  ☞3.5 Test print

Setup List

<Information> 2006/01/01 0:00

SerialNo.	= EY4E000001			!Error!			
Model	= VJ-1204	Firmware M	= V 1.08	0 : None [ ]	2 : None [ ]	4 : None [ ]	
Memory Size	= 128MB	Firmware C	= V 1.08	1 : None [ ]	3 : None [ ]	5 : None [ ]	

<Menu Setup> Height of head:Normal Cleaning mode: Normal

```
[Number][Select]Menu      =  Setup
[ 1][*]MediaType          =  Type 1
          [1]Print Mode       =  Graphics 2
          [2]PF Length
                    [1]Initial Adj.Print
                    [2]Initial Adjust     =  250.0/250mm
                    [3]Confirm Adj.Print
                    [4]Micro Adj. Print
                    [5]Micro Adjust       =    0pulse
          [3]PreHeater        =  30° C
          [4]PlatenHeater     =  30° C
          [5]AfterHeater      =  30° C
          [6]Standby Heat     =  60min
          [7]Vacuum Fan       =  High
[ 2][*]Effect             =  Fine&Wave1
[ 3][*]Flushing           =  Origin
[ 4][*]SideMargin         =  3mm
[ 5][*]Media Initial      =  Width
[ 6][*]MediaWidth         =  1000mm
[ 7][*]Take-up            =  Off
[ 8][ ]Feed
[ 9][*]Origin
[10][*]Prevent Stick      =  On
[11][ ]Head Fan
[12][*]CR Movement        =  Data
[13][*]Overwrite Cnt      =  1cnt
[14][*]Overwrite Wait     =  0.0sec
[15][*]Media Slant        =  On

[Number][Select]Menu      =  Setup
[16][*]Auto Cleaning      =  6h
[17][*]Ink Status              K:100%   C:100%
                               M:100%   Y:100%
[18][*]Roll Kind          =  Off
[19][*]Head Wash
[20][*]CR Maintenance
[21][*]Initialization
[22][*]Life Times              Head     : E★★★★★F
                               Pump     : E★★★★★F
                               CR Motor : E★★★★★F
                               PF Motor : E★★★★★F
[23][*]IP Address         =  192.168.001.253
[24][*]Subnet Mask        =  255.255.255.000
[25][*]Gateway            =  192.168.001.254
[26][*]FrontInterlace     =  On
```

<Media Type List>

Media Type	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type10
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
PF>Initial Adjust	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm
PF>Micro (4pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (6pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (8pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (16pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PreHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
PlatenHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
AfterHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
Standby Heat	60min	60min	60min	60min	60min	60min	60min	60min	60min	60min
Vacuum Fan	High	High	High	High	High	High	High	High	High	High

Media Type	Type11	Type12	Type13	Type14	Type15	Type16	Type17	Type18	Type19	Type20
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
PF>Initial Adjust	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm
PF>Micro (4pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (6pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (8pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (16pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PreHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
PlatenHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
AfterHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
Standby Heat	60min	60min	60min	60min	60min	60min	60min	60min	60min	60min
Vacuum Fan	High	High	High	High	High	High	High	High	High	High

Media Type	Type21	Type22	Type23	Type24	Type25	Type26	Type27	Type28	Type29	Type30
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
PF>Initial Adjust	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm	250.0/250mm
PF>Micro (4pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (6pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (8pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PF>Micro (16pass)	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse	0pulse
PreHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
PlatenHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
AfterHeater	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C	30° C
Standby Heat	60min	60min	60min	60min	60min	60min	60min	60min	60min	60min
Vacuum Fan	High	High	High	High	High	High	High	High	High	High

3.5.4 Palette print

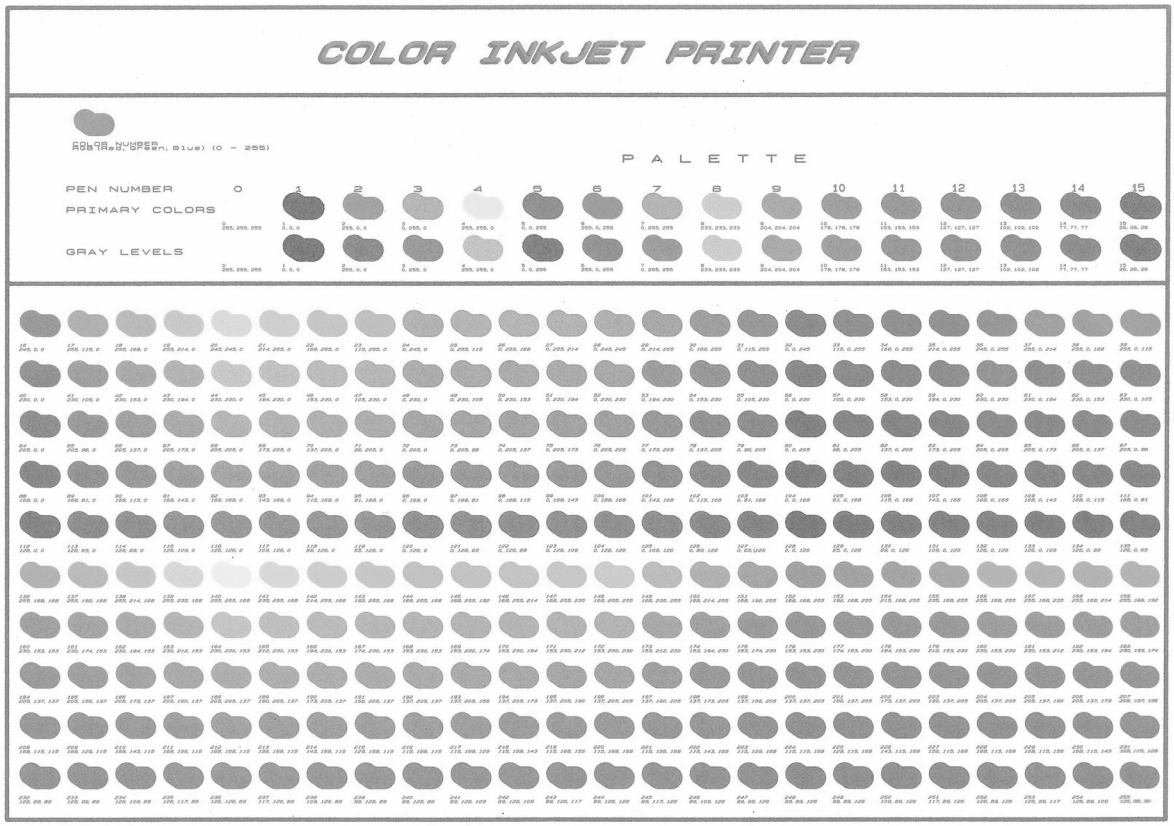
Used to compare pen colors used on the computer to the printing colors.

NOTE

- When "Banner 1" or "Banner 2" is set in the Print Mode menu, "PalettePrint" is not displayed on the test print menu.
  ☞5.2 TestPrint Menu

TIP

- Refer to the following for printing procedure.
  ☞3.5 Test print



3.6 Adjust print

It is used for optimizing the quality of image prints (Alignment).

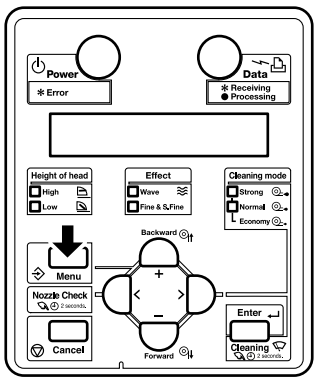
Alignment must be set every printing mode.

After selected the printing mode that you want to use, follow the procedure below to perform alignment.

NOTE

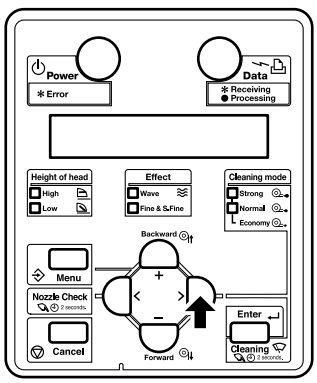
- This printer was adjusted at factory shipment so that it obtains the optimum print quality.
  Adjust the quality if the print quality changes after the installation environment or the media is changed.

1. Turn ON the printer and load the roll media.
   ☞3.4.2 Setting roll media
2. Confirm that the printer functions normally.
3. Display the Printing mode menu on the operation panel.
   a. Press the [Menu] key on the operation panel.



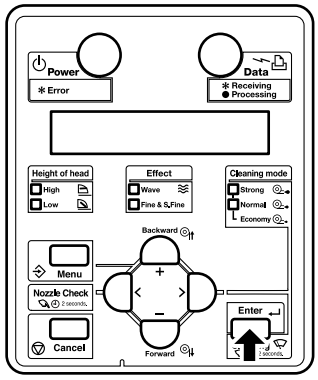
   - "Menu 1: Setup>" is displayed on the operation panel.
   - The operation panel shifts to the Setup menu display.

   b. Press the [>] key on the operation panel.



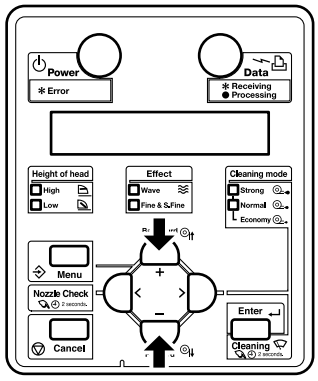
   - "Set1: MediaType" is displayed on the operation panel.

c. Press the [Enter] key on the operation panel.

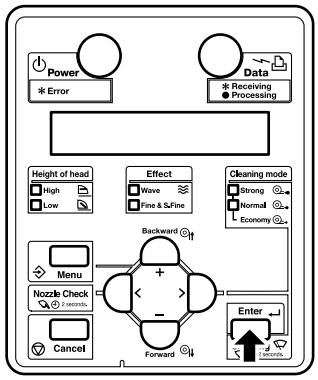


- "Media: Type 1" is displayed on the operation panel.

d. Press the [+] key or [–] key on the operation panel to select the media type to use.



e. Press the [Enter] key on the operation panel.

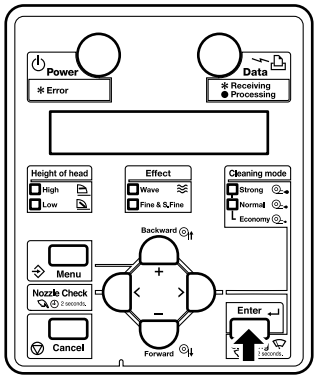


- "**>1: Print Mode" is displayed on the operation panel.

TIP

- The selected media (Type 1 to 30) is displayed in "**".
  ☞5.1.1 MediaType menu

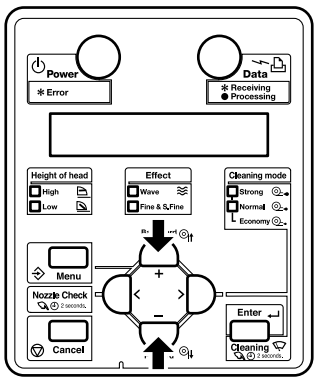
f. Press the [Enter] key on the operation panel.



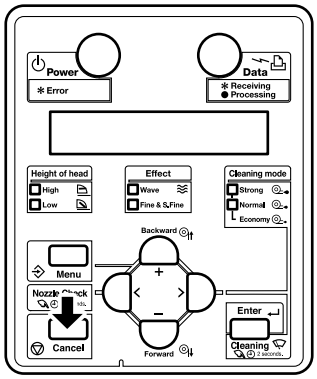
- "Mode: Quality 2 – > " is displayed on the operation panel.
- The display shifts to the Printing mode menu.
  ☞5.1.1.1.1 Print Mode menu

4. Select the printing mode that you want to use.

a. Press the [+] key or [–] key on the operation panel to select the printing mode to use.



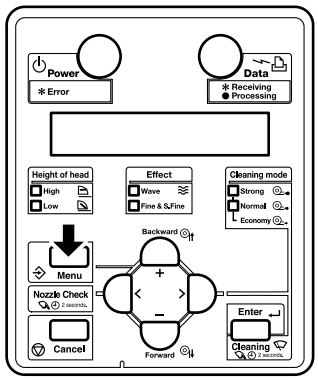
b. Press the [Cancel] key on the operation panel several times.



- The operation panel returns to Normal.

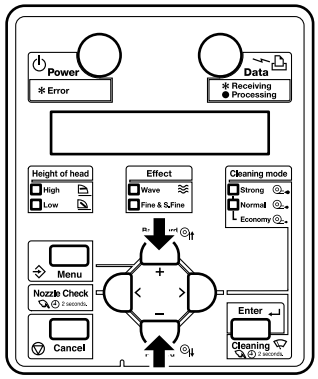
5. Display the Adjust Print menu on the operation panel.

   a. Press the [Menu] key on the operation panel.

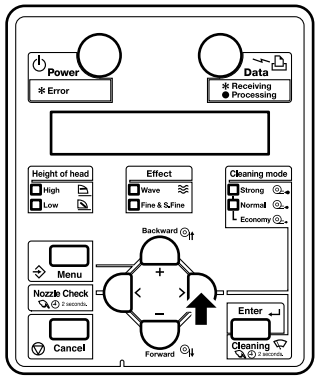


   - "Menu 1: Setup>" is displayed on the operation panel.
   - The operation panel shifts to the Setup menu display.

   b. Press the [+] key or [–] key to select "Menu3: Adjust Print>".

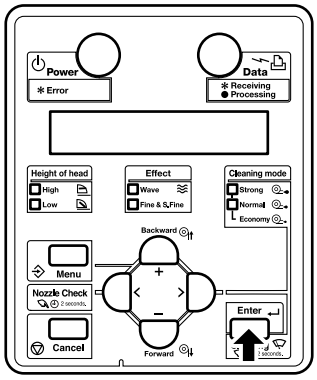


   c. Press the [>] key on the operation panel.

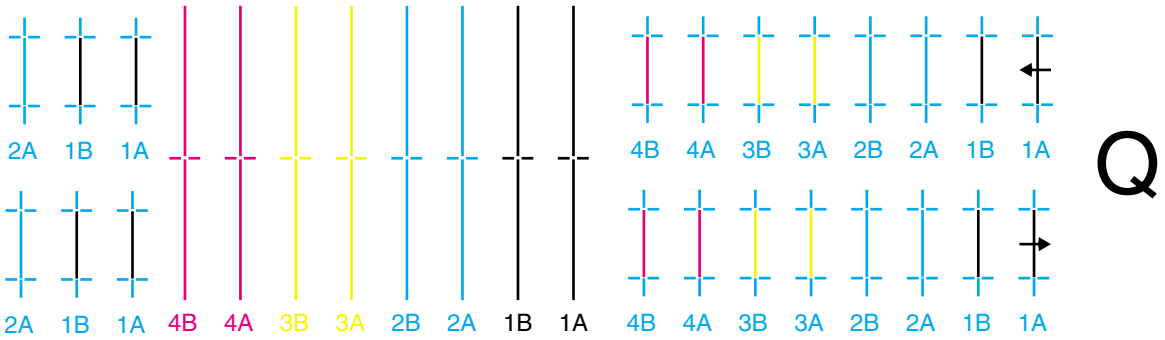


   - "Adj.1: Confirm" is displayed on the operation panel.
   - The display enters the Adjust Print menu.
     ☞5.3 Adjust Print menu

6. Press the [Enter] key on the operation panel.

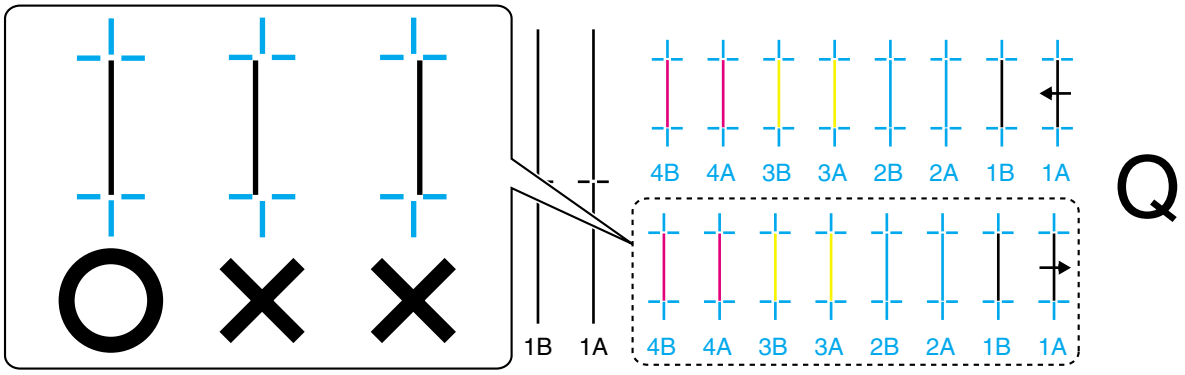


- A confirmation pattern for quality adjustment is printed.



- After the confirmation pattern is printed, the operation panel shifts to Normal.

7. Confirm that the confirmation pattern printing result is as follows.



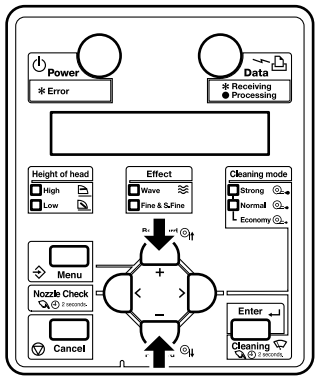
a. When the printing result is ○:
You do not need perform Alignment. Proceed to step 10.

b. When the printing result is ×:
You need to perform Alignment. Proceed to step 8.

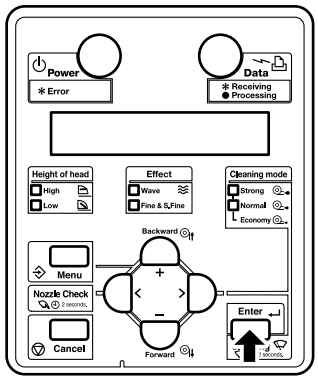
8. Register a set value for Bi-D Quality (two-way printing/quality priority mode).

   a. Display the Adjust Print menu on the operation panel in the same way as in step 5.

   b. Press the [+] or [–] key on the operation panel to select "Adj.5: Bi-D Quality".

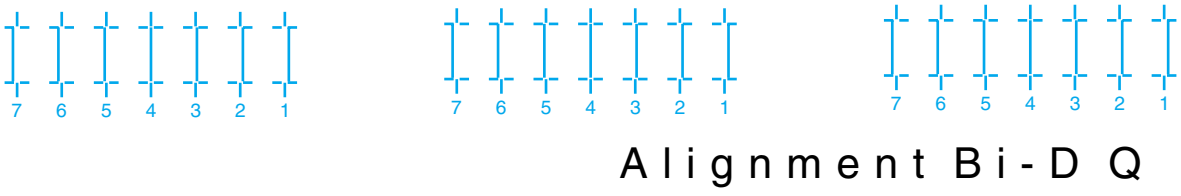


   c. Press the [Enter] key on the operation panel.

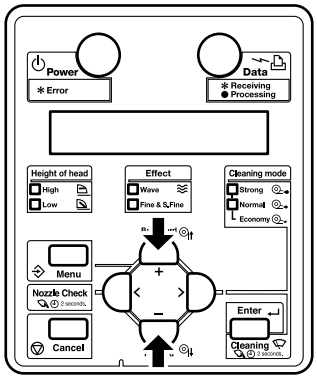


   - Start Bi-D Quality pattern printing.

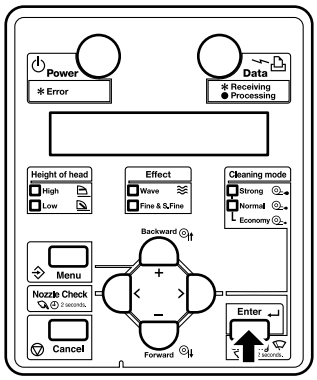
   d. Check three print samples that printed with Bi-D Quality pattern, and select the number that is not out of alignment.
   "4" is selected in the next printing sample.



e. Press the [+] or [–] key to enter the number that you selected in step c.

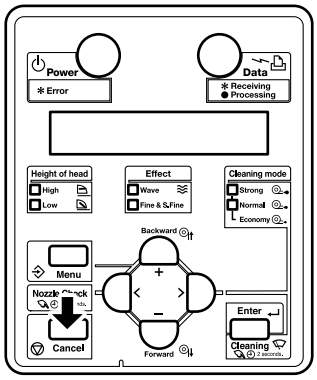


f. Press the [Enter] key on the operation panel.



- The set value for Bi-D Quality is registered.
- "Adj.5: Bi-D Quality" is displayed on the operation panel.

9. Register the setting for Bi-D Normal (two-way printing/normal mode) in the same way as in step 8.
10. Press the [Cancel] key on the operation panel several times.



- The operation panel returns to Normal.
- Alignment ends.

3.7 Connecting the printer to a PC

This section explains how to connect the printer and a PC.

3.7.1 System requirements

The following are the system requirements for this printer and software server RIP (optional).

Operating system	Windows 2000 Professional
CPU	Pentium III processor 1 GHz or more
Memory (RAM)	512 MB or more
Hard disk free space	10 GB or more

NOTE

- The required memory varies depending on the application software or the print data type.
- A large hard disk and memory are recommended.

3.7.2 Preparing cables

The printer is equipped with a network interface for connecting with a PC.
You need a network interface cable to connect a PC with this printer. Prepare the cable depending on the PC that it will be connected to.

TIP

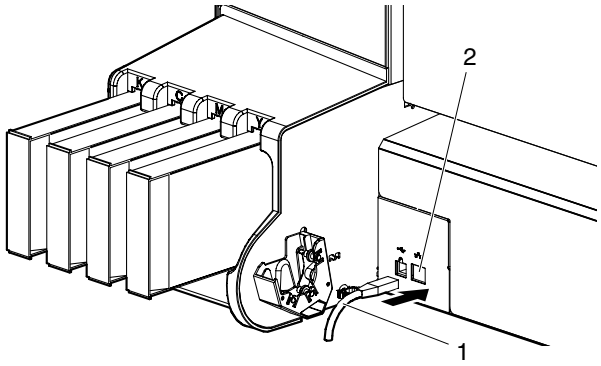
- About connecting a network interface cable, refer to "3.7.3 Connecting a network interface cable".
- For the recommended cable specifications, refer to "8.2 Interface specification".

3.7.3 Connecting a network interface cable

This section explains how to connect a network interface cable.

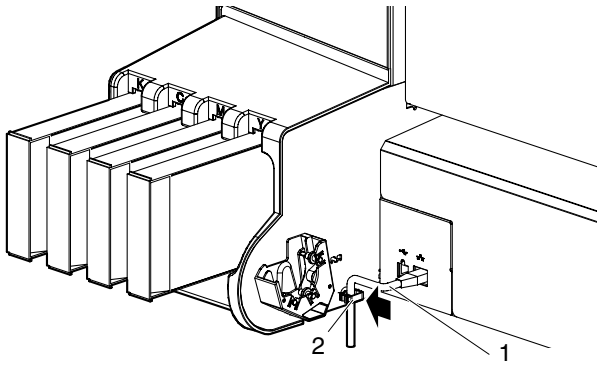
Follow the procedure below to connect this printer to your PC.

1. Turn OFF both the printer and PC.
2. Insert the network interface cable into the network interface connector located in the back of the printer.



No.	Name
1	Network interface cable
2	Network interface cable connector

3. Fix the network interface cable to the cable clamp.



No.	Name
1	Network interface cable
2	Cable clamp

4. Connect the other connector of the network interface cable to your PC.

TIP

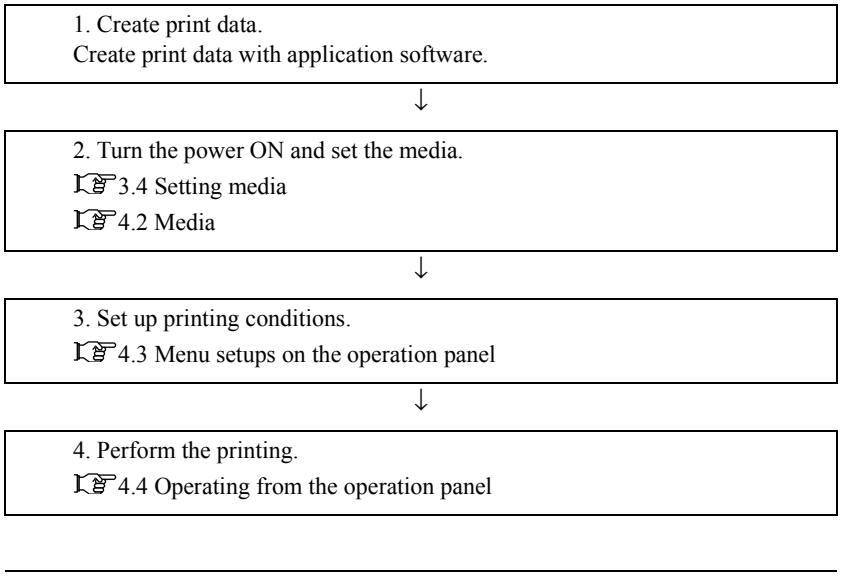
- About connecting to your PC, refer to the operation manual included with the PC.
- For network setting on the side of the printer, refer to "4.3.2 Panel setup menu overview".

4 Handling the printer

This chapter explains how to handle the printer.

4.1 Print flow chart

The following flow chart illustrates the procedure for drawing with the printer.
Refer to each section as required.


1. Create print data.
Create print data with application software.
2. Turn the power ON and set the media.
☞3.4 Setting media
☞4.2 Media
3. Set up printing conditions.
☞4.3 Menu setups on the operation panel
4. Perform the printing.
☞4.4 Operating from the operation panel

WARNING

- **Do not store combustible materials on the platen while performing the heater operation. It could lead to fire.**
- **Do not spill flammable liquid over the platen. This could lead to fire.**

CAUTION

- **Do not touch the media guide during printing. It is hot and may cause a burn.**
- **Do not touch the media feed slot, platen or media guide while heaters are operating. They are hot and may cause a burn.**
- **Keep the work area well-ventilated. This prevents fire, and stops operators from feeling sick from bad air.**

NOTE

- Do not open the front cover during printing. If the front cover is opened, printing will be interrupted. Printing restarts if you close the front cover. However, you are not guaranteed to have high print quality.

4.2 Media

This section explains details of available media for this printer.

4.2.1 Media type

The type and quality of media greatly influence the print result. Use media that matches the application, taking the following information into account.
Various recommended media are prepared for this printer as follows. Select the appropriate media according to the usage.

NOTE

- For details of the recommended media, contact your local MUTOH dealer.
- If failures or malfunctions of the printer occur by the use of media that is not dedicated:
  - The printer will not be covered by the warranty and repair expenses will be paid by the customer.
  - For details, refer to the following manuals.
    ☞6 Maintenance
    ☞7 Troubleshooting
  - To request a repair, contact your local MUTOH dealer.

TIP

- When printing on media that is not recommended,
  - Refer to the media manual or ask at the retail location where you purchased the media for information on media type or appropriate settings for this printer.
  - Set the print quality according to "5.1.1 MediaType menu".

4.2.2 Cautions on handling media

Note the following points when handling the media.

NOTE

- Use recommended media under an appropriate environment.
  The appropriate temperature and humidity for printing are as follows.

	Temperature	Humidity
Guaranteed range of printing accuracy	22℃ - 30℃	40% - 60%
Change rate	Within 2 °C per hour	Within 5 % per hour

- Do not use media which is folded, cut, or torn.
- The size of media can change according to changes in humidity in the printing environment. Before using media, leave media for 30 minutes in the printing environment to adapt it to the environment. Performing printing without adapting media to the printing environment may cause media jams due to gaps or wrinkles in the media. Print quality is also affected.
- Do not touch the print side. Moisture and oil on your hands may affect the print quality.
- Do not leave media set in the printer for a long time. Some media has a tendency to bend, causing media jams and degradation of print quality. Avoid using such media especially in winter, in dry conditions, and when printing formal documents.
- Do not discard the individual box and bag. Use them for storing media.

4.2.3 Precaution on storing media

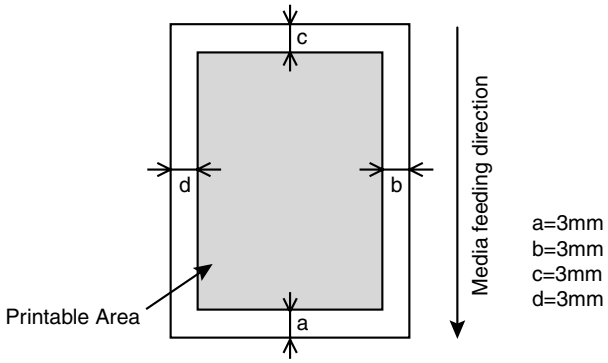
Note the following points on storing media.

NOTE

- Avoid high temperature, high humidity, and direct sunlight when storing media.
- After removing the unused roll media from the scroller, wind it properly. Then wrap it with an individual bag and store it in an individual box.
- Keep the media dry.

4.2.4 Printing area

The printable area of this printer is as follows.



4.2.5 Head height adjustment

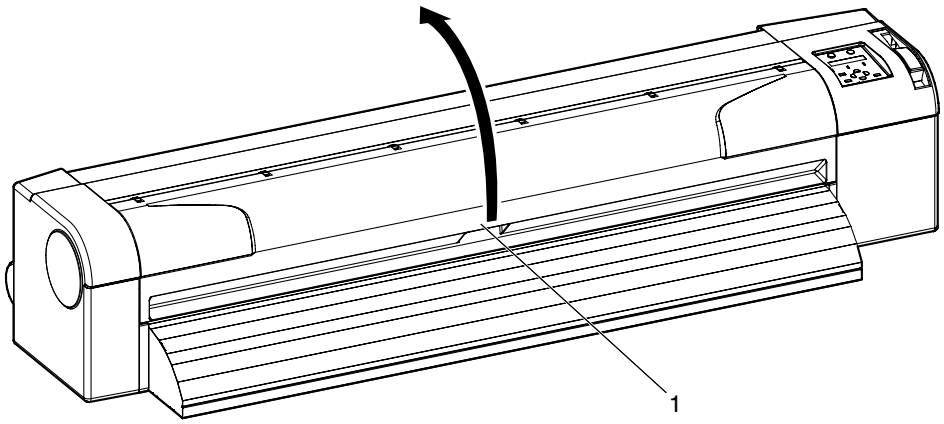
Printing with high printing rate or using strongly-curved media can cause print heads to rub.
Changing the head height may allow you to avoid head rub.
Follow the procedure below to change the head height.

4.2.5.1 When raising the print head

NOTE

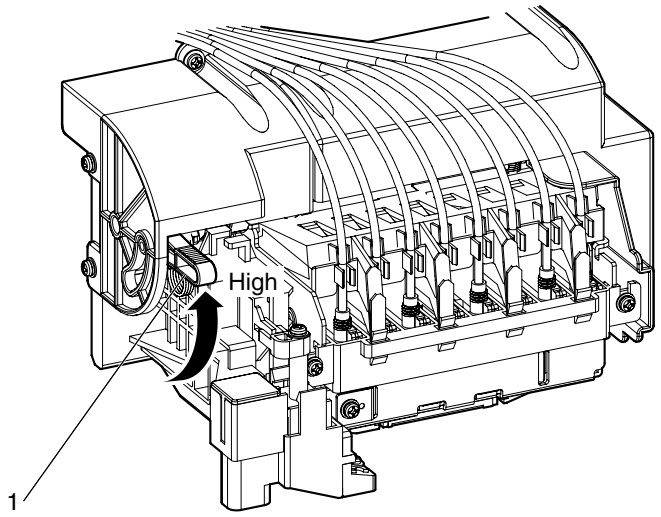
- If the head height adjustment lever is raised, high print quality is not guaranteed.
- Do not open the front cover or change the head height during printing. If the head height is changed, the alignment will be changed and high print quality will not be guaranteed.

1. Open the front cover.



No.	Name
1	Front cover

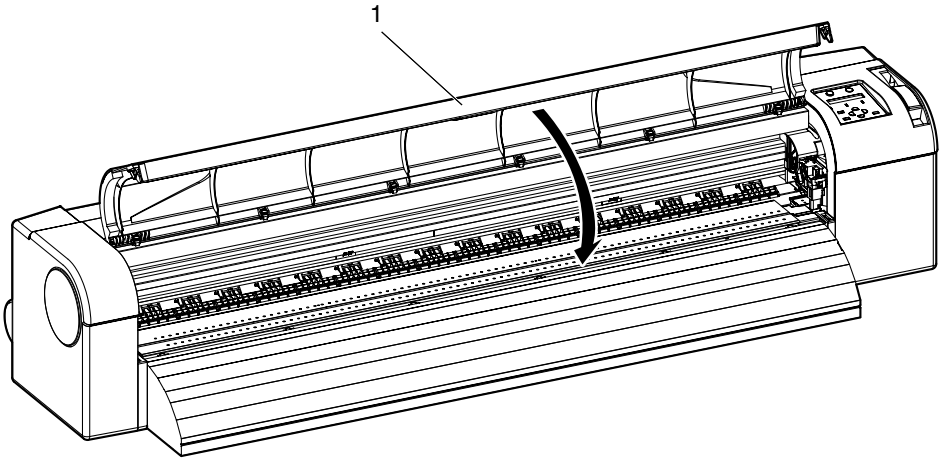
2. Change the head height by moving the head height adjustment lever (orange).



No.	Name
1	Head height adjustment lever

- The High lamp on the operation panel lights up in green.

3. Close the front cover.



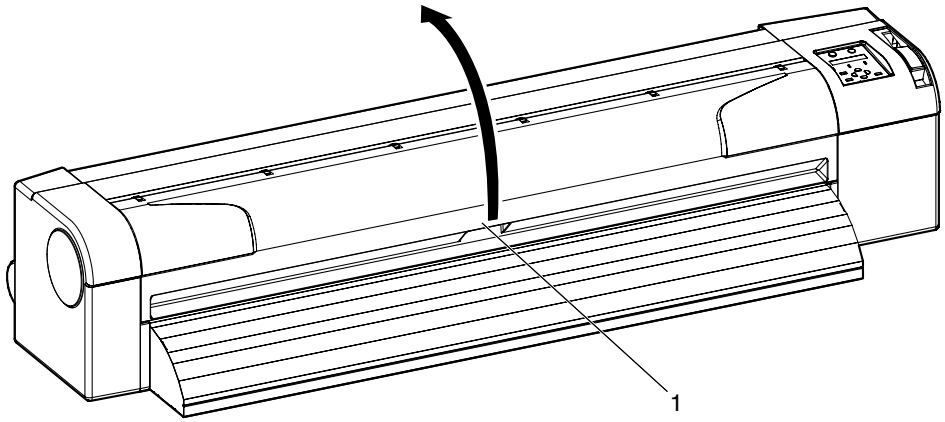
No.	Name
1	Front cover

4.2.5.2 When returning the print head to the original position

NOTE

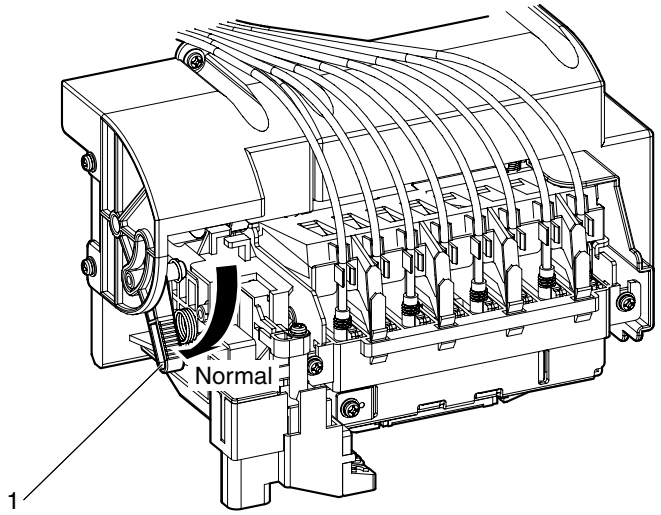
- Do not open the front cover or change the head height during printing. If the head height is changed, the alignment will be changed and high print quality will not be guaranteed.

1. Open the front cover.



No.	Name
1	Front cover

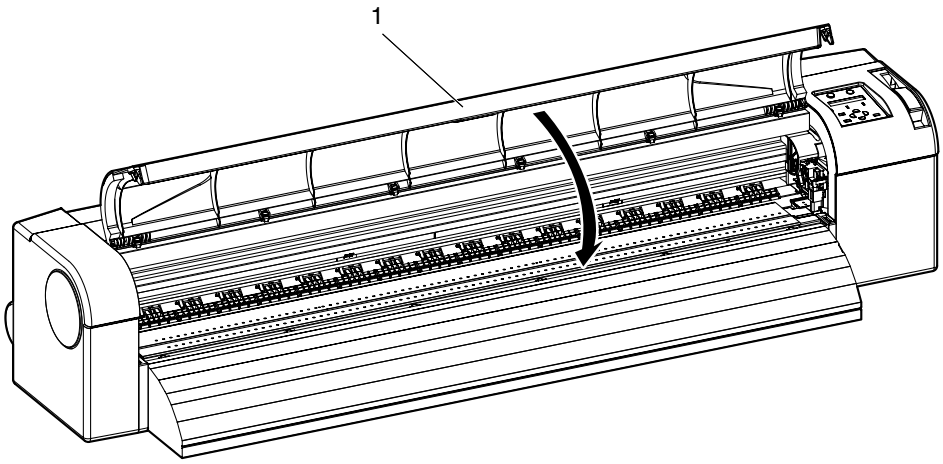
2. Change the head height by moving the head height adjustment lever (orange).



No.	Name
1	Head height adjustment lever

- The Low lamp on the operation panel lights up in green.

3. Close the front cover.



No.	Name
1	Front cover

4.2.6 Media feed compensation

This section explains the Media feed compensation.

The feeding length depends on the media type. The following or similar results may be seen in prints.

- Printed images overlap.
- White lines are printed on images.

The accuracy of media feeding may be improved with the following methods.

1. Display the Media feed compensation menu on the operation panel.
   a. Press the [Menu] key on the operation panel.
      - "Menu 1: Setup>" is displayed on the operation panel.
      - The operation panel shifts to the Setup menu display.
   b. Press the [>] key on the operation panel.
      - "Set1: MediaType" is displayed on the operation panel.
   c. Press the [Enter] key on the operation panel.
      - "Media: Type 1" is displayed on the operation panel.
   d. Press the [+] key or [–] key on the operation panel to select the media type to use.
   e. Press the [Enter] key on the operation panel.
      - "**>1: Print Mode" is displayed on the operation panel.

      TIP

      - The selected media (Type 1 to 30) is displayed in "**".
        ☞5.1.1 MediaType menu

   f. Press the [+] key or [–] key to select "**2: PF Adjust".
   g. Press the [>] key on the operation panel.
      - "PF1: Initial Print" is displayed on the operation panel.
      - Proceed to Media feed compensation menu.
        ☞5.1.1.1.2 Dist.Adj menu

2. Performs initial adjust print.

   a. Press the [Enter] key on the operation panel.

      • "Feed Length: 250 mm" is displayed on the operation panel.

      TIP

      • The length of media that is fed (feeding length) for initial adjustment printing is normally set at 250 mm.
      • If you increase the feeding length, the accuracy of the Media feed compensation improves.
        To change the feeding length, press the [+] key or [–] key on the operation panel and change the set value.

   b. Press the [Enter] key on the operation panel.

      • "Printing" is displayed on the operation panel.
      • Start Initial adjustment printing.

No.	Name
1	Feed Length
2	Media feeding direction

      • When the initial adjustment printing is complete, the printer enters Normal.

   c. After the initial adjustment printing, cut the media.
      ☞4.4.3 Cutting media

3. Measure the distance between the two pluses in the initial adjustment print using a ruler.

4. Set up Initial Adjust Change.

   a. Press the [+] key or [–] key on the operation panel to select "PF2: Initial Change".

   b. Press the [Enter] key on the operation panel.

      • "Init.: 250.0/250 mm" is displayed on the operation panel.

   c. Press the [+] key or [–] key on the operation panel and enter the measured value in step 3.

d. Press the [Enter] key on the operation panel.

- The initial adjustment value is saved.
- "PF2: Initial Change" is displayed on the operation panel.

5. Perform Confirm Print.

a. Press the [+] key or [–] key on the operation panel to select "PF3: Confirm Print".

b. Press the [Enter] key on the operation panel.

- "Feed Length: 250 mm" is displayed on the operation panel.

TIP

- The length of media that is fed (feeding length) for confirmation adjustment printing is normally set at 250 mm.
- If you increase the feeding length, the accuracy of the Media feed compensation improves.
  To change the feeding length, press the [+] key or [–] key on the operation panel and change the set value.

c. Press the [Enter] key on the operation panel.

- "Printing" is displayed on the operation panel.
- Start Confirmation adjustment printing.

No.	Name
1	Feed Length
2	Media feeding direction

- When the Confirm Print is complete, the printer enters Normal.

d. After the confirmation adjustment printing, cut the media.
☞4.4.3 Cutting media

6. Measure the distance between the two pluses in the confirmation adjustment print using a ruler. Then, confirm that the distance matches the feeding length when printing.

a. If the distance does not match the feeding length, follow the procedure from 1 to 5 and readjust.

b. If the distance matches the feeding length, proceed to step 7.

7. Perform Micro adjustment printing.

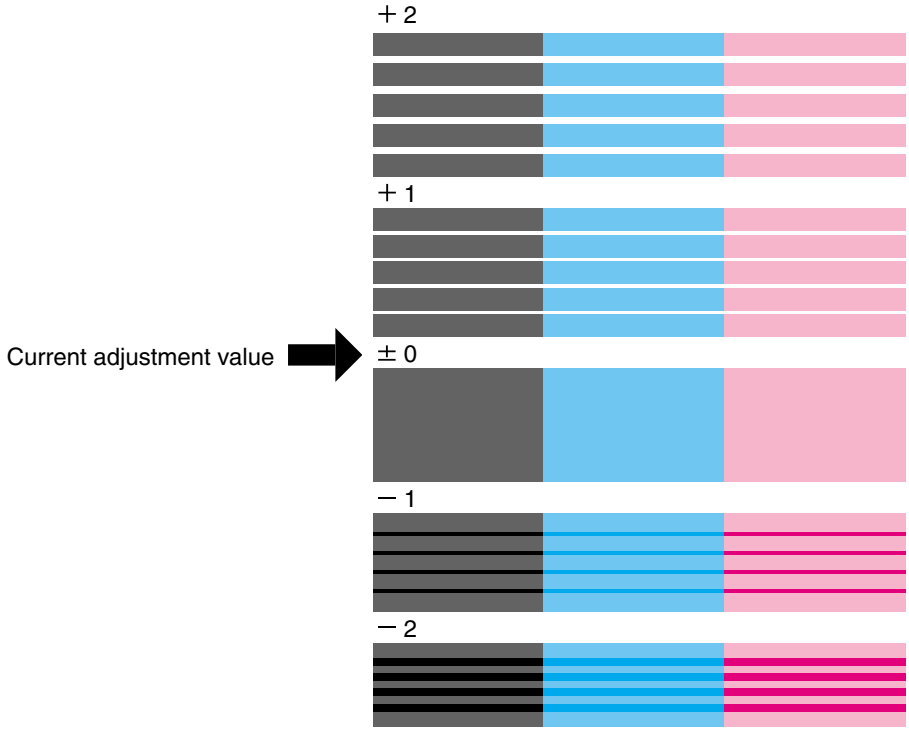
   a. Display the Media feed compensation menu on the operation panel in the same way as in step 1.

   b. Press the [+] key or [–] key on the operation panel to select "PF4:Micro Print".

   c. Press the [Enter] key on the operation panel.

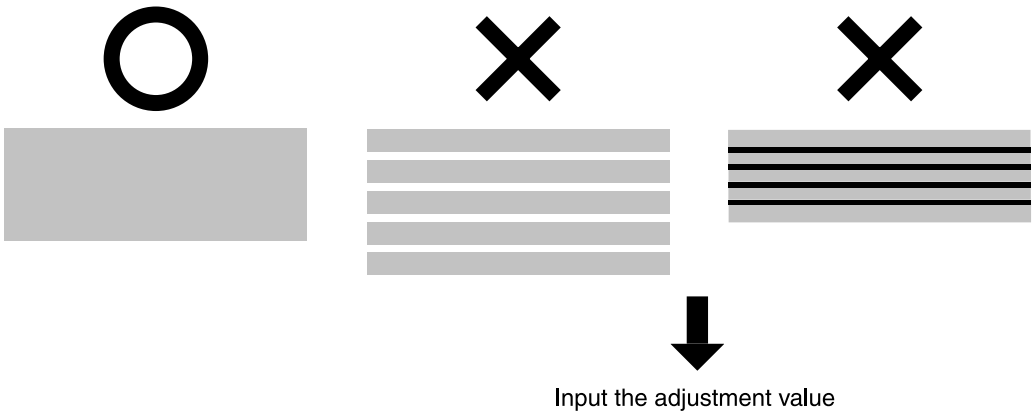
      • "Printing" is displayed on the operation panel.

      • Start Micro adjustment printing.



      • After the micro adjustment printing is completed, "PF4:Micro Print" is displayed on the operation panel.

8. Refer to the illustrations below and check the printing result.



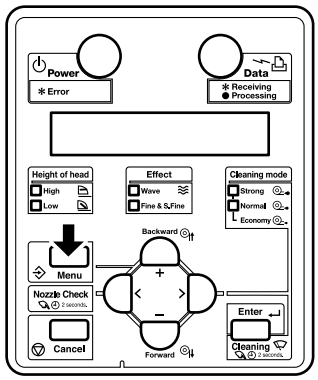
9. Set up Micro Adjustment Change.
   a. Press the [+] key or [–] key to select "PF5:Micro Change".
   b. Press the [Enter] key on the operation panel.
      - "Micro: 0pulse" is displayed on the operation panel.
   c. Press the [+] key or [–] key and enter the micro adjustment value according to the printing result in step 7.
   d. Press the [Enter] key on the operation panel.
      - The micro adjustment value is saved.
      - "PF5:Micro Change" is displayed on the operation panel.
10. Press the [Cancel] key on the operation panel several times.
    - The operation panel returns to Normal.
    - The adjustment of media feed compensation value is complete.

4.3 Menu setups on the operation panel

4.3.1 Menu setup procedure

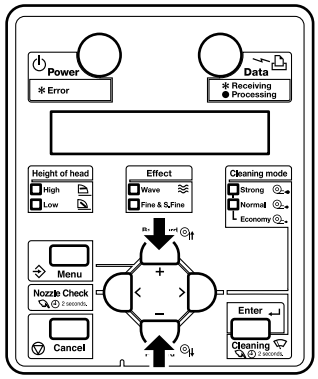
Follow the procedure below to configure each setup menu.

1. Confirm that the operation panel is Normal.
2. Press the [Menu] key on the operation panel.



- "Menu 1: Setup>" is displayed on the operation panel.
- The operation panel shifts to the Setup menu display.

3. Press the [+] key or [–] key on the operation panel to select a setup item and press the [Enter] key.

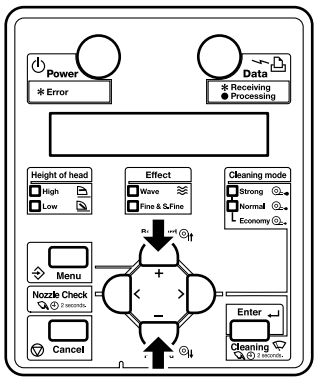


- The settings will be confirmed.
- When setup items have a submenu, the display shifts to the next menu.

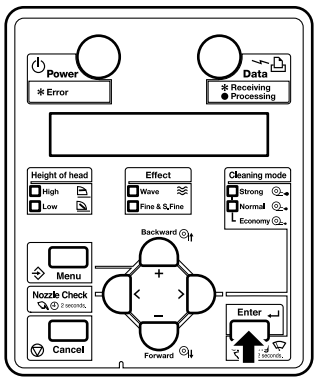
NOTE

- When a setup item has a submenu, ">" is displayed on the right end of the LCD monitor of the operation panel.
- For the general outline of each setup item, refer to "4.3.2 Panel setup menu overview".

4. The setting in the blinking part on the LCD monitor of the operation panel can be changed. Press the [+] key or [–] key to change the setting.



5. To save the changed setting, press the [Enter] key on the operation panel.

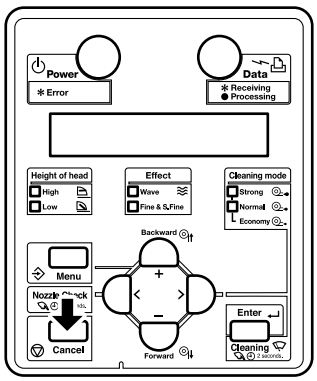


- The setting is saved and the next setup item is displayed.

NOTE

- If you press the [Cancel] key, [+] key or [–] key without pressing [Enter] key after changing a setting, the change will not be saved.

6. Press the [Cancel] key on the operation panel to exit from the setup.



- The previous setup menu is displayed.
- When the main menu is displayed, the screen turns to Normal.

4.3.2 Panel setup menu overview

This sub-section explains the Panel setup menu of the printer.
There are the following items in the Panel setup menu.

Setup item	Description
Setup menu	Various settings of the printer are configured.
Test Print menu	Performs nozzle check of the print head and setup list.
Adjust Print menu	Print and adjust test patterns for Alignment.
Cleaning menu	Perform Head cleaning.
Menu Option menu	Sets up the contents of the Setup menu.
Version menu	Displays the versions of the firmware.

TIP

- For details of each setup item, refer to "5 Panel setup menu".

4.4 Operating from the operation panel

This section explains various functions that can be operated from the operation panel.

TIP

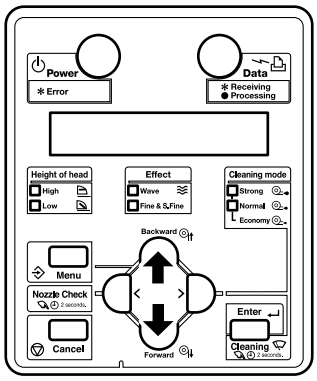
- For names and functions of each key, refer to "2.2.3 Operation panel".

4.4.1 Feeding media

You can feed roll media at a position that you want.

Follow the procedure below to feed media.

1. Confirm that the operation panel is Normal.
2. Confirm that the media loading lever is returned to the front.
3. Press the [Forward↓] key or the [Backward↑] key on the operation panel.



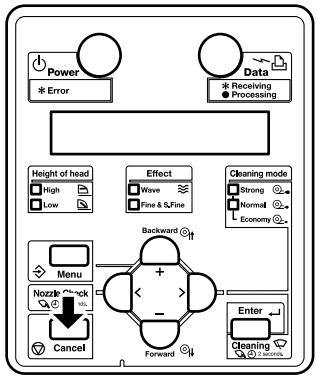
- Media is fed forward or backward.

4. Release the [Backward↑] key or [Forward↓] key on the operation panel after feeding media to the desired position.

4.4.2 Stopping printing operation

If you want to stop printing for some reasons, operate as follows.

1. Stop sending printing data from the computer to the printer.
2. Press the [Cancel] key on the operation panel.



- The printer operates as follows.

Printer status	Operation with the [Cancel] key pressed
During printing	Terminates printing and deletes the remaining data in the printer.
Receiving/converting	Deletes the received/analyzed data and the subsequent data.

NOTE

- If a large amount of data is saved on the printer, the operation panel may not return to Normal by a single [Cancel] key operation.
  In such cases, wait for a few seconds and press the [Cancel] key again.

4.4.3 Cutting media

This sub-section explains how to cut roll media.

CAUTION

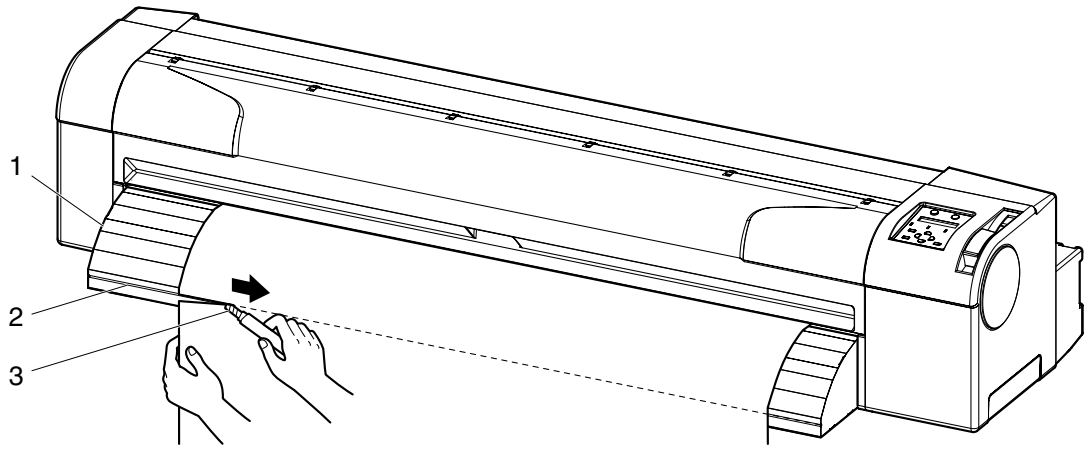
- **When printing is finished, the media guide is at high temperature. Wait until the media guide cools off.**

Follow the procedure below to cut roll media.

1. Verify the following regarding the operational condition of the product.
   - Printing or other operations are not in progress.
   - The operation panel display is Normal.
2. If the roll media cut position is changed, refer to "4.4.1 Feeding media" and advance the roll media to the desired cut position.
3. Place a razor blade on the media cut groove on the media guide, and cut the roll media.

CAUTION

- **Pay attention to the following points when you cut roll media. Mishandling the razor blade may cause a cut on your finger or hand.**
  - **When you hold media, do not place your finger on the media cut groove.**
  - **Move the razor blade along the media cut groove.**



No.	Name
1	Media guide
2	Media cut groove
3	Razor blade

- Cutting roll media is complete.

NOTE

- When loading the new roll media, cut the front edge of the media if it is not straight.

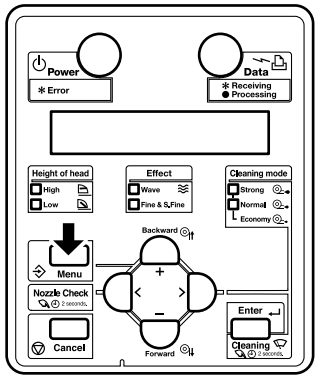
4.4.4 Changing and confirming settings while printing

While the printer is operating, you can change or confirm settings for the Panel setup menu.

4.4.4.1 Procedure for changing and confirming settings while printing

Follow the procedure below to change or confirm settings for the Panel setup menu.

1. Confirm that the printer is in one of the following conditions.
   - Receiving
   - Converting
   - Printing
   - Warming up
2. Press the [Menu] key on the operation panel.



   - "Menu 1: Print Start" is displayed on the operation panel.
3. Press the [+] key or [–] key to change or confirm settings.

NOTE

- For the setting items whose settings can be changed or confirmed, refer to "4.4.4.2 Settings that can be changed or confirmed while printing".

4.4.4.2 Settings that can be changed or confirmed while printing

NOTE

- The Print start menu is displayed only when the printer is warming up.
- When you change a setting during operation, be sure to select "Backup" to save the setting that you changed.
  If the printer returns to Normal without "Backup" being selected, the changed setting is not saved.

Setup item	Setting	Description
Print Start	—	• [Enter] key: If the heater temperature does not reach the set value during warming-up, printing starts.
Temperature	Pre	Check the current Pre Heater temperature.
	Platen	Check the current Platen Heater temperature.
	After	Check the current After Heater temperature.
Pre Heater	Off / 30 °C to 50 °C	Change the Pre Heater temperature.
Platen Heater	Off / 30 °C to 50 °C	Change the Platen Heater temperature.
After Heater	Off / 30 °C to 50 °C	Change the After Heater temperature.
PF Adjust	–20 pulse to 0 to 20 pulse	Change the feed adjustment value.
Backup	—	• [Enter] key: Save the changed setting.
	—	• [Cancel] key: The printer returns to Normal.

4.4.5 Pausing printing

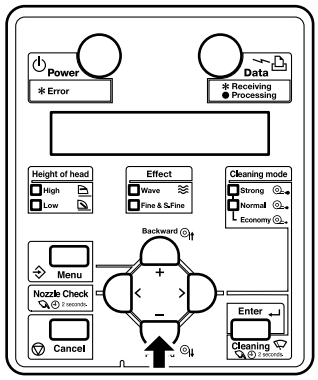
It is possible to pause to print during printing.

Follow the procedure below to pause or restart printing.

NOTE

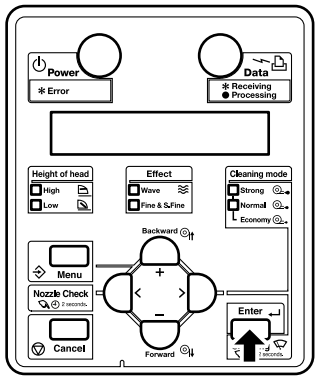
- If the printing is paused, the print quality will not be guaranteed.

1. Check that the printer is in operating.
2. Press the [–] key on the operation panel.



- The printer pauses printing.
- "PrintRestart -> ENTER" is displayed on the operation panel.

3. To restart printing, press the [Enter] key on the operation panel.



- The printer restarts printing.

5 Panel setup menu

The section explains the Setup menu of the printer.

Setup item	Description
Setup menu	Various settings of the printer are configured. ☞ 5.1 Setup menu
Test Print menu	Performs nozzle check of the print head and setup list. ☞ 5.2 TestPrint Menu
Adjust Print menu	Sets up when adjusting the printer for the optimum quality of image print. ☞ 5.3 Adjust Print menu
Cleaning menu	Perform Head cleaning. ☞ 5.4 Cleaning menu
Menu Option menu	Sets up the contents of the Setup menu. ☞ 5.5 Menu Option menu
Version menu	Displays the versions of the firmware. ☞ 5.6 Version menu
Sleep mode menu	Sleep mode settings are configured. ☞5.7 Sleep Mode menu

TIP

- The < > parts in each list are factory default settings (initial values).
- For details of the Setup menu, refer to the following manual.
  ☞QUICK REFERENCE "Setup menu diagram"

5.1 Setup menu

Various settings of the printer are configured.

Setup item	Description
MediaType	Sets up the media type to print. • [Enter] key: shifts to the sub menu. ☞ 5.1.1 MediaType menu
Effect	Sets up the Effect menu. • [Enter] key: shifts to the sub menu. ☞ 5.1.2 Effect menu
Spitting	Set up the Flushing operation while printing. • [Enter] key: shifts to the sub menu. ☞ 5.1.3 Spitting menu
Side Margin	Specifies the right and left margins of printed media. • [Enter] key: shifts to the sub menu. ☞ 5.1.4 Side Margin menu
Media Initial	Decides whether to detect the width and front edge of the media when initializing the media. • [Enter] key: shifts to the sub menu. ☞ 5.1.5 Media Initial menu
Media Width/MediaWidth	Specifies the media width between the loading mark and the left end if media detection is not performed during media initialization. Displays the detected media width if media detection is performed during media initialization. • [Enter] key: shifts to the sub menu. ☞ 5.1.6 Media Width/MediaWidth menu
Take-up	Set the operation of the optional winding unit. • [Enter] key: shifts to the sub menu. ☞ 5.1.7 Winding unit menu
Origin	Sets the beginning of printing (origin) of the print data. • [Enter] key: shifts to the sub menu. ☞ 5.1.8 Origin menu
Prev. Stick	Sets up to prevent media from sticking when printing starts. • [Enter] key: shifts to the sub menu. ☞ 5.1.9 Prev. Stick menu
Head Travel	Sets up the range that the print head moves while printing. • [Enter] key: shifts to the sub menu. ☞ 5.1.10 Head Travel menu
Multi Strike	Sets up the overwrite count per line. • [Enter] key: shifts to the sub menu. ☞ 5.1.11 Multi Strike menu
Strike Wait	Sets up the waiting time while overwrite printing. • [Enter] key: shifts to the sub menu. ☞ 5.1.12 Strike Wait menu
Slant Check	Sets up slanting detection during media loading. • [Enter] key: shifts to the sub menu. ☞ 5.1.13 Slant Check menu

Setup item	Description
Auto Cleaning	Sets up the time for auto cleaning during printing. • [Enter] key: shifts to the sub menu. ☞ 5.1.14 Auto Cleaning menu
Ink Status	Displays information (ink status) of ink cartridge installed in the ink cartridge slot. • [Enter] key: shifts to the sub menu. ☞ 5.1.15 Ink Status menu
Roll Length	Sets up the roll media length. • [Enter] key: shifts to the sub menu. ☞ 5.1.16 Roll Length menu
Longstore	Performs print head cleaning with the cleaning fluid. • [Enter] key: shifts to the sub menu. ☞ 5.1.17 Longstore menu
CR Maintenance	Performs maintenance. • [Enter] key: shifts to the sub menu. ☞ 5.1.18 CR Maintenance menu
Initialization	Returns the settings of the printer to default. • [Enter] key: shifts to the sub menu. ☞ 5.1.19 Initialization menu
Life Times	Displays the operational life time of each part. • [Enter] key: shifts to the sub menu. ☞ 5.1.20 Life Times menu
IP Address	Sets the IP address of the printer. • [Enter] key: shifts to the sub menu. ☞ 5.1.21 IP Address menu
Subnet Mask	Sets the subnet mask of the printer. • [Enter] key: shifts to the sub menu. ☞ 5.1.22 Subnet Mask menu
Gateway	Sets the gateway. • [Enter] key: shifts to the sub menu. ☞ 5.1.23 Gateway menu
Front Interlace	Set the front treatment function. • [Enter] key: shifts to the sub menu. ☞ 5.1.24 Front Interlace menu
Temporary	Displays the settings of "Off" or "ALL Off" in the Menu Option menu in the Setup menu temporarily. • [Enter] key: returns to the previous menu with all set up items displayed. • [Cancel] key: returns to the previous status in the Menu Option menu when the Setup menu is displayed. ☞ 5.5 Menu Option menu
—	• [Cancel] key: shifts to the previous menu. ☞ 5 Panel setup menu

5.1.1 MediaType menu

Sets up the media type to print.

Setup item	Setting	Description
Media	Type 1	Sets up the media type to print. It is possible to set 30 different user settings as "Type 1 to 30" for printing. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1 User media menu
	Type 2	
	…	
	Type 29	
	Type 30	
	—	• [Cancel] key: saves the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.1.1 User media menu

Various settings on the user media are configured.
In the User media menu, 30 different settings can be set as Type 1 to 30 for the following printing operation.

NOTE

- If media other than recommended one (user media) is used, the following problems may occur.
  - Media detection error
  - Slant, snag and wrinkle of media
  - Media jams
  - Favorable print quality cannot be obtained due to blots, blurs or dirt of ink.
  - End detection of roll media cannot be performed, etc.

  The problems caused by the use of user media will not be covered by the warranty and repair expenses will be paid by the customer.
  For details, contact your local MUTOH dealer.

Setup item	Setting	Description
Type 1 to 30	Print Mode	Sets up the print mode according to the usage of print data or print speed. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1.1 Print Mode menu
	PF Adjust	Various settings on the Media feed compensation are configured. • [>] key: shifts to the sub menu. ☞ 5.1.1.1.2 Dist.Adj menu
	Pre Heater	Sets up the Pre Heater temperature. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1.3 Pre Heater menu
	Platen Heater	Sets up the Platen Heater temperature. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1.4 Platen Heater menu
	After Heater	Sets up the After Heater temperature. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1.5 After Heater menu
	StandbyHeating	Sets up the length of time to preheat the heater while the printer is in standby mode. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1.6 StandbyHeating menu
	Vacuum Fan	Sets up vacuum fan operation. • [Enter] key: shifts to the sub menu. ☞ 5.1.1.1.7 Vacuum Fan menu
	—	• [Cancel] key: shifts to the previous menu. ☞ 5.1.1 MediaType menu

5.1.1.1.1 Print Mode menu

Settings for print quality (print mode) are set according to the usage of print data or print speed.

Setup item	Setting	Description
Mode	Quality 1	Sets up print mode. • Quality 1 to 4: Sets up to perform high quality printing. • Graphics 1 to 2: Sets up to perform standard printing. • Banner 1 to 4: Sets up to perform high speed printing. Displays details of each print mode while pressing [>] key. ☞ Details of print mode **NOTE** • When "Banner 1" or "Banner 2" is set in the Print Mode menu, "PalettePrint" is not displayed in the Test Print menu. ☞5.2 TestPrint Menu
	Quality 2	
	Quality 3	
	Quality 4	
	Graphics 1	
	<Graphics 2>	
	Banner 1	
	Banner 2	
	Banner 3	
	Banner 4	
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

Details of print mode

The settings for print quality registered in each print mode are as follows.

Print Mode	Resolution	Print speed	Pass	Direction
Quality 1	1440×1440 dpi	Q (high quality)	16 times	Uni (unilateral)
Quality 2	1440×720 dpi	Q (high quality)	8 times	Uni (unilateral)
Quality 3	720×720 dpi	Q (high quality)	8 times	Uni (unilateral)
Quality 4	720×720 dpi	Q (high quality)	8 times	Bi (bidirectional)
Graphics 1	720×720 dpi	N (normal)	8 times	Uni (unilateral)
Graphics 2	720×720 dpi	N (normal)	8 times	Bi (bidirectional)
Banner 1	540×720 dpi	N (normal)	6 times	Uni (unilateral)
Banner 2	540×720 dpi	N (normal)	6 times	Bi (bidirectional)
Banner 3	720×720 dpi	Q (high quality)	4 times	Uni (unilateral)
Banner 4	720×720 dpi	N (normal)	4 times	Bi (bidirectional)

5.1.1.1.2 Dist.Adj menu

Various settings on the Media feed compensation are configured.

Setup item	Setting	Description
PF	Initial Print	Performs initial adjust print. • [Enter] key: shifts to the sub menu. ☞ (1) Initial Print menu
	Initial Change	Set up Initial Adjust Change. • [Enter] key: shifts to the sub menu. ☞ (2) Initial Change menu
	Confirm Print	Perform Confirm Print. • [Enter] key: shifts to the sub menu. ☞ (3) Confirm Print menu
	Micro Print	Perform Micro Adjustment Print. • [Enter] key: shifts to the sub menu. ☞ (4) Micro Print menu
	Micro Change	Set up Micro Adjustment Change. • [Enter] key: shifts to the sub menu. ☞ (5) Micro Change menu
	—	• [Cancel] key: shifts to the previous menu. ☞ 5.1.1.1 User media menu

(1) Initial Print menu

Perform initial adjust print.

Setup item	Setting	Description
Feed Length	100mm to <250mm> to 500mm	Changes the length (feed length) of the media feed direction for initial adjust print. • [Enter] key: Determines the setting. "Printing" is displayed on the operation panel and initial adjust print starts. After printing, the printer enters Normal.
	—	• [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1.2 Dist.Adj menu

(2) Initial Change menu

Set up Initial Adjust Change.

Setup item	Setting	Description
Init.	50.0mm to <250.0mm> to 550.0mm	Set up Initial Adjust Change.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1.2 Dist.Adj menu

(3) Confirm Print menu

Perform Confirm Print.

Setup item	Setting	Description
Feed Length	100mm to <250mm> to 500mm	Changes the length (feed length) of the media feed direction for Confirm Print. • [Enter] key: Determines the setting. "Printing" is displayed on the operation panel and initial adjust print starts. After printing, the printer enters Normal.
	—	• [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1.2 Dist.Adj menu

(4) Micro Print menu

Perform Micro Adjustment Print.

Setup item	Setting	Description
Micro Print	Printing	Prints the following PF pattern (micro adjustment) with a focus on the micro adjustment value. • Printing interval: ±1 pulse
	—	• [Cancel] key: shifts to the previous menu. Stops printing and returns to the previous menu if printing is in progress. ☞ 5.1 Setup menu

(5) Micro Change menu

Set up Micro Adjustment Change.

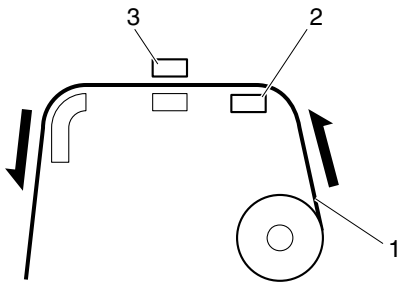
Setup item	Setting	Description
Micro Change	–20 pulse to <0 pulse> to 20 pulse	Set up Micro Adjustment Change.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.1.1.3 Pre Heater menu

Sets up the Pre Heater temperature.
Set up to preheat the media before printing and insulate the temperature change in the printer section.

NOTE

- Preset temperature of Pre Heater varies depending on the media.
  For preset temperature of Pre Heater, refer to the "Recommended media list".

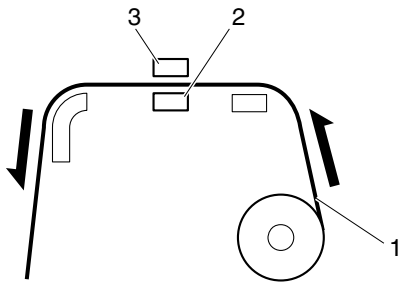
Setup item	Setting	Description
Pre Heater	Off / <30° C> to 50° C	Sets up the Pre Heater temperature.  1.Roll media 2.Pre Heater 3.Print head
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

5.1.1.1.4 Platen Heater menu

Sets up the Platen Heater temperature.
Set up this menu to warm up ink and improve print quality.

NOTE

- Preset temperature of Platen Heater varies depending on the media.
  For preset temperature of Platen Heater, refer to the "Recommended media list".

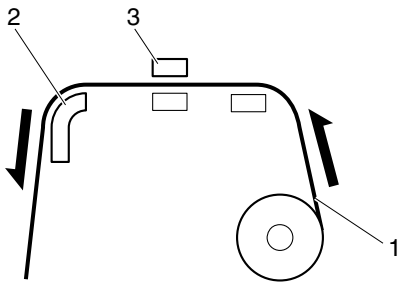
Setup item	Setting	Description
Platen Heater	Off / <30° C> to 50° C	Sets up the Platen Heater temperature.  1.Roll media 2.Platen Heater 3.Print head
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

5.1.1.1.5 After Heater menu

Sets up the After Heater temperature.
Set this menu to dry printed media.

NOTE

- Preset temperature of After Heater varies depending on the media.
  For preset temperature of After Heater, refer to the "Recommended media list".

Setup item	Setting	Description
After Heater	Off / <30° C> to 50° C	Sets up the After Heater temperature.  1.Roll media 2.After Heater 3.Print head
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

5.1.1.1.6 StandbyHeating menu

Sets up the length of time to preheat the heater while the printer is in standby mode.

Setup item	Setting	Description
StandbyHeating	10 min to <60 min> to 240 min	Sets the length of time to preheat the heaters. When more than the set time has passed, each heater turns off.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

5.1.1.1.7 Vacuum Fan menu

Sets up vacuum fan operation.

Setup item	Setting	Description
Vacuum Fan	Low	Set when there is a possibility of a paper jam caused by failure in media loading when using soft media.
	<High>	Set when using general media.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

5.1.2 Effect menu

Sets up the Effect menu.
Set up this menu when you want to improve print quality by adjusting the set print mode.

NOTE

- The print quality may not be improved depending on the printing condition.

Setup item	Setting	Description
Effect	None 1	The Effect function is not used. If obvious white lines or uneven print density appear on printed media in "None 1", set to "None 2".
	None 2	
	Wave 1	The printing joint will be the wave form. It will be improved the print quality. If obvious white lines or uneven print density appear on printed media in "Wave 1", set to "Wave 2".
	Wave 2	
	Fuzz 1	The printing joint will shade off as the wave form. Set up this menu when obvious white lines or uneven print density appear on printed media in "Wave". If obvious white lines or uneven print density appear on printed media in "Fuzz 1", set to "Fuzz 2".
	Fuzz 2	
	Wow 1	Set when colors become irregular. If irregular colors are not fixed using "Wow 1", set to "Wow 2".
	Wow 2	
	<Fine&Wave 1>	Perform printing at a slow speed compared with "Wave". Set up this menu when improving the print quality compared with "Wave". If obvious white lines or uneven print density appear on printed media in "Fine&Wave 1", set to "Fine&Wave 2".
	Fine&Wave 2	
	Fine&Fuzz 1	Perform printing at a slow speed compared with "Fuzz". Set up this menu when improving the print quality compared with "Fuzz". If obvious white lines or uneven print density appear on printed media in "Fine&Fuzz 1", set to "Fine&Fuzz 2".
	Fine&Fuzz 2	
	A-S.Fine&Wave	Performs "Wave" printing using one side of the nozzles of the print head. Since only one side of the nozzles is used, printing speed becomes half of "Wave 1 to 2". Set up this menu when improving the print quality compared with "Fine&Wave 1 to 2".
	B-S.Fine&Wave	Performs "Wave" printing using the other side of the nozzles of the print head that is used for "A-S.Fine&Wave". Since only one side of the nozzles is used, printing speed becomes half of "Wave 1 to 2". Set up this menu when improving the print quality compared with "Fine&Wave 1 to 2".
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1 Setup menu

5.1.3 Spitting menu

Set up the Flushing operation while printing.

Setup item	Setting	Description
Spitting	Origin	Perform the flushing operation to return to the original flushing box every time the print head goes and returns. • [Enter] key: saves the setting and shifts to the previous menu. ☞ 5.1 Setup menu
	<On Media>	Perform the flushing operation on the page margins. Improve the print quality since returning to the original flushing box. • [Enter] key: saves the setting and shifts to the sub menu. ☞ 5.1.3.1 Spitting Pass Count menu
	—	• [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.3.1 Spitting Pass Count menu

Set the frequency (spitting pass count) that the print head returns to the original flushing box when setting "On Media" in the Spitting menu.

NOTE

- When increasing the spitting pass count, clogging may occur while printing continuously.
- If you set the spitting pass count to "0 times or less", the nozzle will become easily clogged because spitting is not performed over the media.
  In this instance, print quality cannot be guaranteed.

Setup item	Setting	Description
ReturnCount	-999 times to 0 times to <5 times> to 999 times	Set the spitting pass count. Example • -1 times: return to the flushing box on the original side every time the print head goes and returns. Spitting is not performed over the media. • 0 times: the print head goes and returns until printing finishes, and does not return to the flushing box. Spitting is not performed over the media. • 1 times: return to the flushing box on the original side every time the print head goes and returns. • 5 times: return to the flushing box on the original side every time the print head goes and returns five times.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.3 Spitting menu

5.1.4 Side Margin menu

Set up the right and left margins (side margins) while printing.

NOTE

- When setting "On Media" in the Spitting menu, the value of the Side Margin menu is disabled and the margin to perform the flushing operation is set automatically.
  ☞ 5.1.3 Spitting menu

Setup item	Setting	Description
Side Margin	<3mm> to 25mm	Set the side margins.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.5 Media Initial menu

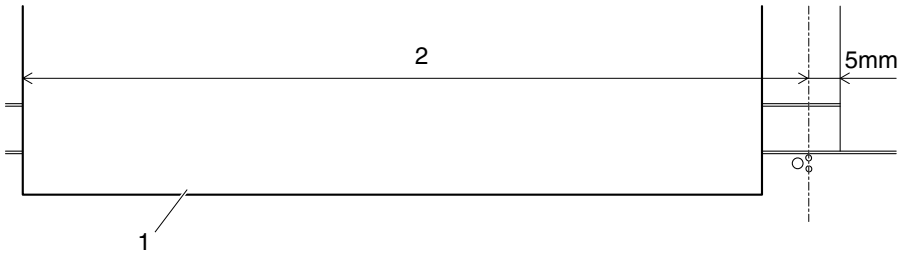
Decides whether to detect the width and front edge of the media when initializing the media.

Setup item	Setting	Description
Init.	Off	The media is not detected. **NOTE** • Set the media width that is set in the Media Width menu when setting "Off" in the Media detection menu, ☞ 5.1.6 Media Width/MediaWidth menu
	Top&Width	Detect the media width and edge while initializing the media.
	<Width>	Detect the media width while initializing the media.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.6 Media Width/MediaWidth menu

Set up the distance between the right end from 5 mm and the left end if media detection is not performed when initializing the media.
☞(1) Media Width menu

Displays the detected media width if media detection is performed during media initialization.
☞(2) MediaWidth menu



No.	Name
1	Roll media
2	Media width

(1) Media Width menu

NOTE

- Setting a larger value than the media width set in the Media Width menu may cause ink to leak on the media or printer.

Setup item	Setting	Description
Media Width	210mm to <1,000mm> to 1,225mm	Set the media width.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1.1.1 User media menu

(2) MediaWidth menu

Setup item	Setting	Description
MediaWidth	**** mm	Display the media width that is detected while initializing.
	—	• [Cancel] key: shifts to the previous menu. ☞ 5.1 Setup menu

5.1.7 Winding unit menu

Set the operation of the optional winding unit.

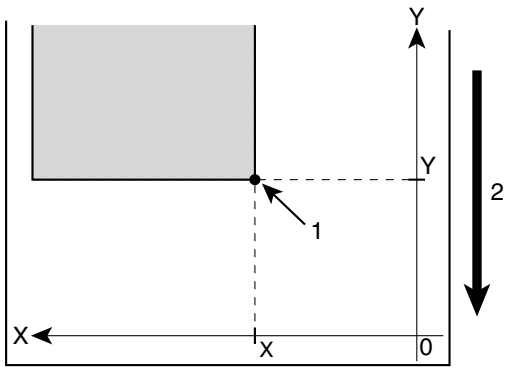
TIP

- For details about the optional winding unit, contact your local MUTOH dealer.

Setup item	Setting	Description
Take-up	<Off>	No use of winding unit.
	Type 1	Set to "Type 1" to use the optional winding unit. NOTE • When the winding unit is not installed, please do not set to "Type1". By doing so, the product will be unable to function properly. • When the Winding unit menu is set to "Type1", the setting for the Prev. Stick menu is disabled. ☞5.1.9 Prev. Stick menu
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.8 Origin menu

Sets the beginning of printing (origin) of the print data.
Set the menu when reprinting on the margin with changing the printing data position to the printed media.

Setup item	Setting	Description
Origin	• X (print head transferring distance): 00000 mm to 99,999 mm • Y (media feeding distance): 00000 mm to 9,999mm	Change the print head position and media feeding distance with the following keys. • [>] key: Decrease the print head transferring distance. • [<] key: Increase the print head transferring distance. • [+] key: Increase the media feeding distance. • [–] key: Decrease the media feeding distance.  1.Starting position 2.Media feeding direction • [Enter] key: "Moving Origin Pos." is displayed on the operation panel and the print head moves to the starting position. The following contents is displayed on the operation panel.
	Confirm Position→Enter	• [Enter] key or after a certain period of time: Determines the setting. Print head returns to the original position. Save the setting and shift to the previous menu. ☞ 5.1 Setup menu
	—	• [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.9 Prev. Stick menu

Sets up to prevent media from sticking when printing starts.

NOTE

- When the Winding unit menu is set to "Type1", the setting for the Prev. Stick menu is disabled.
  ☞5.1.7 Winding unit menu

Setup item	Setting	Description
Prev. Stick	Off	The sticking operation is not performed.
	<On>	The sticking operation is performed. Feed the media back and forth to prevent from sticking.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.10 Head Travel menu

Sets up the range that the print head moves while printing.

Setup item	Setting	Description
Distance	<Data>	The print head changes the range of the print data width. Improve the print speed since decreasing the transferring range of the print head.
	Machine	The print head moves from origin to the maximum paper width.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.11 Multi Strike menu

Sets up the overwrite count per line.

Setup item	Setting	Description
Strike Cnt	<once> to 9 times	Set the overwrite count.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.12 Strike Wait menu

Sets up the waiting time while overwrite printing.

NOTE

- Narrow media may not be warmed enough by the heater causing less print quality. In this case, set the Strike Wait time and warm up the media.

Setup item	Setting	Description
Strike Wait	<0.0 sec.> to sec.0.1 sec. to 5.0 sec.	Set the Overwrite Wait time.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.13 Slant Check menu

Sets up slanting detection during media loading.

Setup item	Setting	Description
Slant Check	Off	Slant Check is not performed.
	<On>	Slant Check is performed.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.13.1 Idle auto cleaning menu

Makes settings for the auto cleaning operation on standby.

Setup item	Setting	Description
WaitingTime	0min to <360min> to 1440min	Select the time to perform the auto cleaning on standby. • 0min: Auto cleaning is not performed. • Others: After that the selected time has passed, the head cleaning selected at the cleaning menu is performed. ☞6.2.3 Head cleaning
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1.14 Auto Cleaning menu

5.1.13.2 Auto cleaning during printing menu

Makes settings for the auto cleaning during printing.

Setup item	Setting	Description
PrintingTime	<0min> to 5min to 180min	Select the time to perform the auto cleaning during printing. • 0min: Auto cleaning is not performed. • Others: After that the selected time has passed, the head cleaning selected at the cleaning menu is performed. ☞6.2.3 Head cleaning
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1.14 Auto Cleaning menu

5.1.13.3 Auto cleaning before printing menu

Makes settings for the auto cleaning before printing.

Setup item	Setting	Description
Before Print	<Off>	Auto cleaning is not performed.
	On	The cleaning selected on the cleaning menu before printing is performed. ☞6.2.3 Head cleaning
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1.14 Auto Cleaning menu

5.1.14 Auto Cleaning menu

Makes various settings for the auto cleaning operation.

TIP

- The cleaning mode reflects the settings in the operation panel.
  ☞6.2.3 Head cleaning

Setup item	Setting	Description
Auto Cleaning	WaitingTime	Makes settings for the auto cleaning operation on standby. ☞5.1.14.1 Idle auto cleaning menu
	PrintingTime	Makes settings for the auto cleaning during printing. ☞5.1.14.2 Auto cleaning during printing menu
	Before Print	Makes settings for the auto cleaning before printing. ☞5.1.14.3 Auto cleaning before printing menu
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1 Setup menu

5.1.14.1 Idle auto cleaning menu

Makes settings for the auto cleaning operation on standby.

Setup item	Setting	Description
WaitingTime	0min to <360min> to 1440min	Select the time to perform the auto cleaning on standby. • 0min: Auto cleaning is not performed. • Others: After that the selected time has passed, the head cleaning selected at the cleaning menu is performed. ☞6.2.3 Head cleaning
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1.14 Auto Cleaning menu

5.1.14.2 Auto cleaning during printing menu

Makes settings for the auto cleaning during printing.

Setup item	Setting	Description
PrintingTime	<0min> to 5min to 180min	Select the time to perform the auto cleaning during printing. • 0min: Auto cleaning is not performed. • Others: After that the selected time has passed, the head cleaning selected at the cleaning menu is performed. ☞6.2.3 Head cleaning
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1.14 Auto Cleaning menu

5.1.14.3 Auto cleaning before printing menu

Makes settings for the auto cleaning before printing.

Setup item	Setting	Description
Before Print	<Off>	Auto cleaning is not performed.
	On	The cleaning selected on the cleaning menu before printing is performed. ☞6.2.3 Head cleaning
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞5.1.14 Auto Cleaning menu

5.1.15 Ink Status menu

Display information (ink status) of ink cartridge that installed to ink cartridge slot.

NOTE

- When displaying the Ink Status menu, use the genuine ink cartridge.
  If you use an ink cartridge other than the genuine one, ink status is not displayed correctly.

Setup item	Setting	Description
KCMY	0 to 100 (Unit: %)	Residual ink quantity of K, C, M and Y color is displayed.
	—	• [Cancel] key: shifts to the previous menu. ☞ 5.1 Setup menu

5.1.16 Roll Length menu

Sets up the roll media length.

Setup item	Setting	Description
Roll kind	<Off>	Roll Length is not used. • [Enter] key: saves the setting and shifts to the previous menu. ☞ 5.1 Setup menu
	Roll1	Sets up the roll media length. The Roll Length setting is set for three types as "Roll1" to "Roll3". • [Enter] key: saves the setting and shifts to the sub menu. ☞ 5.1.16.1 Roll media length menu
	Roll2	
	Roll3	
	—	• [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.16.1 Roll media length menu

Sets up the roll media length.

Setup item	Setting	Description
Length	1 m to <30 m> to 99 m	Set the roll media length. **NOTE** • When replacing the roll media, adjust the roll media length again. If the roll media length is not set, the residual quantity of roll media is not displayed correctly.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.17 Longstore menu

Performs cleaning the print head with the cleaning fluid.

NOTE

- Make sure to use a dedicated cleaning fluid (model No.: VJ-MSINK3-CL220).

Setup item	Setting	Description
Longstore	Start	Performs cleaning the print head with the cleaning fluid. • [Enter] key: Perform head cleaning. The following contents is displayed on the operation panel.
	Remove Cartridges	Remove the ink cartridge, and install the cleaning cartridge. ☞ 6.1.1 Replacing ink cartridges
	—	• [Cancel] key: shifts to the previous menu without cleaning the print head. ☞ 5.1 Setup menu

5.1.18 CR Maintenance menu

Performs maintenance.
Use this for replacing the flushing-box sponge and cleaning the cleaning wiper.
☞ 6.1.4 Replacing the flushing-box sponges
☞ 6.2.4 Cleaning the cleaning wiper

Setup item	Setting	Description
CR Mainte.	Start	Performs maintenance. • [Enter] key: The print head moves to center. The cleaning wiper moves forward.
	End	Completes maintenance. • [Enter] key: Print head returns to the original position. The cleaning wiper returns to the original position.
	—	• [Cancel] key: shifts to the previous menu without maintenance. ☞ 5.1 Setup menu

5.1.19 Initialization menu

Returns the settings of the printer to default.

Setup item	Setting	Description
Initialization	ALL	All settings can be returned to factory default.
	MediaType	The settings of the MediaType menu is returned to factory default.
	Except MediaType	The settings value other than the MediaType menu is returned to factory default.
	—	• [Enter] key: "Initialing" is displayed on the operation panel and the printer initializes the setting. • [Cancel] key: shifts to the previous menu without initialization. ☞ 5.1 Setup menu

5.1.20 Life Times menu

Displays the operational life time of each part.

Setup item	Setting	Description
Life Times	Head	Display the operational life of each part. • The operational life of a part is indicated by five asterisks (100 %). • As the part deteriorates, the number of asterisks decreases one by one (20 %). • The part should be changed when all of the asterisks have disappeared, and "Change" is displayed. Contact your local MUTOH dealer to ask for replacing parts.
	Pump	
	CR Motor	
	PF Motor	
	—	• [Cancel] key: shifts to the previous menu. ☞ 5.1 Setup menu

NOTE

- When replacing a part that its operational life has ended,
  - No charge for replacing within the warranty period or under the contract.
  - You are liable for the cost of repairs under conditions other than mentioned above.
- Do not keep using the part which has reached its life span. Problems caused by doing so will not be covered by the warranty.

5.1.21 IP Address menu

Sets the IP address of the printer.

NOTE

- Be sure to set the IP address after consulting the network administrator.

Setup item	Setting	Description
IP Address	000.000.000.000 to <192.168.001.253> to 255.255.255.255	Change the IP address to operate the following keys. • [+] key: increases the setting value. • [–] key: decreases the setting value. • [Enter] key: changes the setting for the next segment.
	—	• [Cancel] key: saves the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.22 Subnet Mask menu

Sets the subnet mask of the printer.

NOTE

- Be sure to set the subnet mask after consulting the network administrator.

Setup item	Setting	Description
Subnet Mask	000.000.000.000 to <255.255.255.000> to 255.255.255.255	Change the subnet mask to operate the following keys. • [+] key: increases the setting value. • [–] key: decreases the setting value. • [Enter] key: changes the setting for the next segment.
	—	• [Cancel] key: saves the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.23 Gateway menu

Sets the gateway.

NOTE

- Be sure to set the gateway after consulting the network administrator.

Setup item	Setting	Description
Gateway	000.000.000.000 to <192.168.001.254> to 255.255.255.255	Change the gateway to operate the following keys. • [+] key: increases the setting value. • [–] key: decreases the setting value. • [Enter] key: changes the setting for the next segment.
	—	• [Cancel] key: saves the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.1.24 Front Interlace menu

Set the front interlace function.
This function is applied when the banding appears at the beginning of print.

Setup item	Setting	Description
Front Interlace	Off	The front interlace function is not used.
	<On>	The front interlace function is used.
	—	• [Enter] key: saves the setting and shifts to the previous menu. • [Cancel] key: cancels the setting and shifts to the previous menu. ☞ 5.1 Setup menu

5.2 TestPrint Menu

Performs nozzle check of the print head and setup list.

TIP

- Refer to the following for the operation procedure of test print.
  ☞3.5 Test print

Setup item	Description
Nozzle check	Perform the nozzle check printing. It is used to check whether there are any clogged heads, or missing or blurred prints. ☞ 3.5.1 Nozzle check
Mode print	Mode print can be performed. Used to confirm the following printing conditions. • Print quality • Effect • Pre Heater temperature • Platen Heater temperature • After Heater temperature • Adjustment value ☞ 3.5.2 Mode print
SetUp List	Setup list printing is performed. Use it for checking the setup item of the printer. ☞ 3.5.3 Setup print
ALL SetUp List	Setup list printing is performed. Use it for checking the setup item, user media and print mode of the printer. ☞ 3.5.3 Setup print
Palette	Palette printing is performed. It is used to compare pen colors of the computer with colors of the printer. ☞ 3.5.4 Palette print NOTE • When "Banner 1" or "Banner 2" is set in the Print Mode menu, "PalettePrint" is not displayed. ☞5.1.1.1.1 Print Mode menu
—	• [Enter] key: "Printing" is displayed on the operation panel and test printing starts. • [Cancel] key: shifts to the previous menu. ☞ 5 Panel setup menu

5.3 Adjust Print menu

Sets up when adjusting the printer for the optimum quality of image print (Alignment).

Alignment must be set every printing mode.
☞3.6Adjust print

After selected the using printing mode, perform alignment.
☞ 5.1.1.1.1 Print Mode menu

Setup item	Description
Confirm	Print the test pattern for the alignment.
Bi-D Quality	Sets up the set value when performing two-way printing in the quality priority mode.
Bi-D Normal	Sets up the setting when performing two-way printing in the normal mode.
—	• [Enter] key: "Printing" is displayed on the operation panel and test pattern printing starts. • [Cancel] key: shifts to the previous menu. ☞ 5 Panel setup menu

5.4 Cleaning menu

Perform Head cleaning.

TIP

- Head cleaning can be operated when the printer is Normal.
  Refer to the following for operation procedures.
  ☞6.2.3 Head cleaning

Setup item	Description
Short	Discharges smaller amount of ink compare to "Normal".
Normal	Select this mode normally.
Long	Discharges larger amount of ink compare to "Normal". Used when the print head does not improve by normal Head cleaning.
Little charge	Refills a small amount of ink. Charge a small amount of ink when printing is not stable after ink replenishment. ☞3.3 Installing ink cartridges
—	• [Enter] key: "Cleaning **%" is displayed on the operation panel and Head cleaning starts. Progress on the Head cleaning is displayed in % on the operation panel. • [Cancel] key: shifts to the previous menu. ☞ 5 Panel setup menu

5.5 Menu Option menu

Sets up the contents of the Setup menu.
You can make setup items that you do not normally use invisible.
Switch the setting "On (displayed)" to "Off (undisplayed)" using the [<] or[>] key on the operation panel.
When the setting is On, "*" is displayed on the operation panel.

NOTE

- Even if you select "Off" in the Menu Option menu, you can display the settings temporarily by selecting "Temporary" in the Setup menu.
  ☞5.1 Setup menu

Setup item	Setting	Description
MediaType	Off	Sets up whether to display the MediaType menu.
	<On>	
Effect	Off	Sets up whether to display the Effect menu.
	<On>	
Spitting	Off	Sets up whether to display the Spitting menu.
	<On>	
Side Margin	Off	Sets up whether to display the Side Margin menu.
	<On>	
Media Initial	Off	Sets up whether to display the Media Initial menu.
	<On>	
Media Width	Off	Sets up whether to display the Media Width menu.
	<On>	
Take-up	Off	Sets up whether to display the Winding unit menu.
	<On>	
Feed	<Off>	The feed unit menu is not displayed in this printer.
Origin	Off	Sets up whether to display the Origin menu.
	<On>	
Prev. Stick	Off	Sets up whether to display the Prev. Stick menu.
	<On>	
HeadFan	<Off>	The Head Fan menu is not displayed in this printer.
Head Travel	Off	Sets up whether to display the Head Travel menu.
	<On>	
Multi Strike	Off	Sets up whether to display the Multi Strike menu.
	<On>	
Strike Wait	Off	Sets up whether to display the Strike Wait menu.
	<On>	

Setup item	Setting	Description
Slant Check	Off	Sets up whether to display the Slant Check menu.
	<On>	
Auto Cleaning	Off	Sets up whether to display the Auto Cleaning menu.
	<On>	
Ink Status	Off	Sets up whether to display the Ink Status menu.
	<On>	
Roll Length	Off	Sets up whether to display the Roll Length menu.
	<On>	
Longstore	Off	Sets up whether to display the Longstore menu.
	<On>	
CR Maintenance	Off	Sets up whether to display the CR Maintenance menu.
	<On>	
Initialization	Off	Sets up whether to display the Initialization menu.
	<On>	
Life Times	Off	Sets up whether to display the Life Times menu.
	<On>	
IP Address	Off	Sets up whether to display the IP Address menu.
	<On>	
Subnet Mask	Off	Sets up whether to display the subnet mask.
	<On>	
Gateway	Off	Sets up whether to display the Gateway menu.
	<On>	
Front Interlace	Off	Sets up whether to display the Front Interlace menu.
	<On>	
ALL On		Displays all items in the Setup menu. • Pressing the [Enter] key displays "*" for all items in the Menu Option menu. **NOTE** • The following items are never displayed even when "ALL On" is selected. • Feed • Prev. Stick

Setup item	Setting	Description
ALL Off		No items in the Setup menu are displayed. • Pressing the [Enter] key deletes "*" for all items in the Menu Option menu. • Even if you select "ALL Off", you can display the items temporarily by selecting "Temporary" in the Setup menu.
—		• [Cancel] key: saves the setting and shifts to the previous menu. ☞ 5 Panel setup menu

5.6 Version menu

Displays the versions of the firmware.

Setup item	Setting	Description
Ver.M/C	*.**(Main)/ *.**(Controller)	Displays the versions of the firmware on the main (M) and controller (C) sides.
	—	• [Cancel] key: shifts to the previous menu. ☞ 5 Panel setup menu

5.7 Sleep Mode menu

Sleep mode settings are configured.
When you activate sleep mode, the printer operates as follows.

- The exhaust fan stops.
- The paper-lifting fan stops.
- All heaters stop.
- All lamps turn off except for the power lamp.
- Automatic head cleaning is performed after the time set in the Timer Setting Menu has expired.
  ☞5.7.1 Timer Setting menu

TIP

- The cleaning mode reflects the settings in the operation panel.
  ☞6.2.3 Head cleaning

Setup item	Setting	Description
Sleep Mode	Set Timer	Set the auto cleaning interval of this printer for Sleep Mode. ☞5.7.1 Timer Setting menu
	Start	Activate Sleep Mode ☞5.7.2 Sleep Mode Start menu
	—	• [Cancel] key: shifts to the previous menu. ☞5 Panel setup menu

5.7.1 Timer Setting menu

Set the head cleaning interval of this printer for Sleep Mode.
When more than the set time has passed, the print head is cleaned automatically.

NOTE

- During Sleep Mode, even if the set amount of time has passed, print-head cleaning is not performed under the following circumstances.
  - The front cover is open.
  - The media loading lever was switched to the back side.
  - The waste fluid tank is full.
  - The ink cartridge is empty.
  - The ink cartridge has been removed.
  - An object other than an appropriate ink cartridge is inserted in the cartridge slot, etc.

  When the printer returns to a normal state, head cleaning is restarted, and Sleep Mode continues.
  ☞7.2 Error messages
- If one of the above conditions occurs during head cleaning, cleaning is stopped.
  When the printer returns to a normal state, head cleaning is restarted.
  ☞7.2 Error messages

Setup item	Setting	Description
Set Timer	1 hours	The selected time is passed, the head cleaning is performed.
	2 hours	
	3 hours	
	4 hours	
	5 hours	
	<6 hours>	
	9 hours	
	12 hours	
	18 hours	
	24 hours	
	—	• [Cancel] key: shifts to the previous menu. ☞5.7 Sleep Mode menu

5.7.2 Sleep Mode Start menu

Activate Sleep Mode
During Sleep Mode, "Press Enter to restart" will be displayed in the operation panel.
During Sleep Mode, pressing [Enter] key will return the printer to normal operation.

NOTE

- If you try to switch to Sleep Mode under the following circumstances, "Don't Start Sleep Mode" will be displayed and the printer will not change to Sleep Mode.
  - The front cover is open.
  - The media loading lever was switched to the back side.
  - The waste fluid tank is full.
  - The ink cartridge is empty.
  - The ink cartridge has been removed.
  - An object other than an appropriate ink cartridge is inserted in the cartridge slot, etc.

  Activate Sleep Mode again after returning the printer to a normal state.
  ☞7.2 Error messages
- During Sleep Mode, pressing [Enter] key under one of the circumstances listed above will not return the printer to normal operation.
  Return the printer to a normal state, and press [Enter] key to return the printer to normal operation.
  ☞7.2 Error messages

Setup item	Setting	Description
Start	Start Sleep Mode?	• [Enter] key: activate Sleep Mode. • [Cancel] key: shifts to the previous menu without activating Sleep Mode. ☞5.7 Sleep Mode menu
	Restart -> Enter	During Sleep Mode. • [Enter] key: return the printer to normal operation.

6 Maintenance

This chapter describes daily maintenance of the product.

6.1 Replacing consumable components

This section describes when and how to replace the ink cartridges, roll media, waste fluid box and flushing-box sponges.

6.1.1 Replacing ink cartridges

This sub-section describes when to replace the ink cartridges.

(1) Replacement time

a. When "[****] InkNearEnd" is displayed on the operation panel

- This message is displayed when there is a small amount of ink remaining in the ink cartridge.
- When "[****] InkNearEnd" is displayed, the alarm buzzer sounds continuously.
- To stop the buzzer, press the [Enter] key.
- Replace with the new ink cartridge.

b. When "[****] InkEnd" is displayed on the operation panel

- This message is displayed when there is no ink remaining in the ink cartridge.
- When "[****] InkEnd" is displayed, the alarm buzzer sounds continuously.
- To stop the buzzer, press the [Enter] key.
- Immediately replace it with the new ink cartridge.

NOTE

- [****] in the messages of ink cartridge replacement indicates the color that is almost empty or runs out, using the following characters.
  - K: Black
  - C: Cyan
  - M: Magenta
  - Y: Yellow
- Do not insert or remove the ink cartridge except at the time of replacement. Inserting or removing the ink cartridge mixes air into the ink tube, and failures such as nozzle detachment may occur.
- If "Ink End" is displayed, you cannot print until inserting the new ink cartridge.
- If there is no cartridge for replacement at hand, leave the empty ink cartridge inserted in the printer. Leaving the printer with the ink cartridge removed may cause the print head to clog.

(2) Type

Our genuine ink cartridges that are compatible with the printer are as follows.

Description	Model No.
Ink cartridge K (Black: 220 ml)	VJ-MSINK3-BK220
Ink cartridge C (Cyan: 220ml)	VJ-MSINK3-CY220
Ink cartridge M (Magenta: 220 ml)	VJ-MSINK3-MA220
Ink cartridge Y (Yellow: 220 ml)	VJ-MSINK3-YE220

NOTE

- Use genuine ink cartridges for replacement.
  This printer is designed to use genuine ink cartridges. If you use an ink cartridge that is not a product of the original manufacturer,
  - Printing might become blurred, or the end of the ink in the cartridge might not be detected correctly.
  - Any problems caused by using an ink cartridge other than those recommended above will not be covered by the warranty, and repair expenses will be paid by the customer.

(3) Replacing steps

Follow the procedure below to replace the ink cartridges.

CAUTION

- **When handling ink cartridges, pay attention so that ink does not get into your eyes or stick to your skin. If ink gets into your eyes or sticks to your skin, immediately wash it off with water.**
  Failing to do so might cause irritation or light inflammation of eyes. In case of any abnormality, consult a physician immediately.
- **Do not disassemble ink cartridges. If disassembled, there is a possibility that ink might come into contact with eyes or skin.**

NOTE

- Do not give ink cartridges strong shakes. Doing so may cause ink leakage.
- Do not disassemble ink cartridges. A disassembled ink cartridge cannot be used.
- When an ink cartridge is moved from a cold place to warm place, keep the ink cartridge for three hours or more in the new printing environment before printing.
- Do not refill an ink cartridge with ink.
  It may result in abnormal printing.
- Insert or remove the ink cartridge at the time of replacement only.
  Inserting or removing the ink cartridge except at the time of replacement may result in incorrect printing.

1. Confirm that the printer is turned ON.

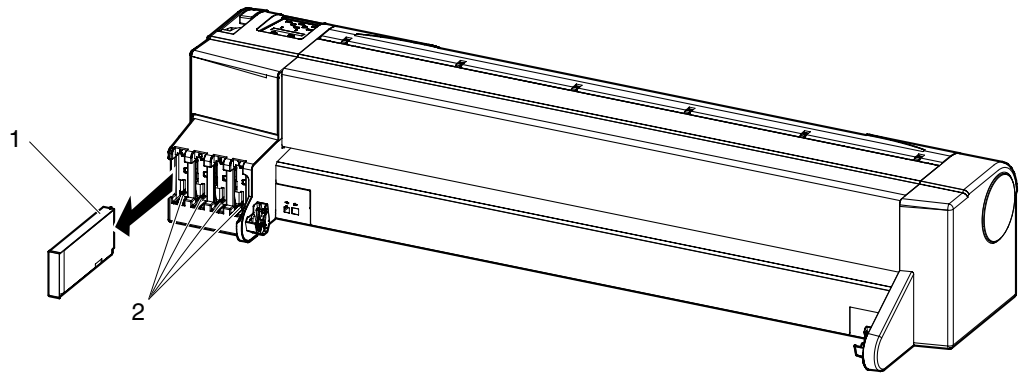
NOTE

- Do not replace ink cartridges when the printer is turned OFF. The remaining ink may not be detected correctly, causing abnormal printing.

2. Remove the ink cartridge that you want to replace from the ink cartridge slot.

NOTE

- Used ink cartridge should be put in a vinyl bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.



No.	Name
1	Ink cartridge
2	Ink cartridge slots

3. Take out the new ink cartridge from the bag.

NOTE

- Open the bag just before attaching the ink cartridge to the cartridge slot. Leaving the ink cartridge with the bag open for a long time may result in abnormal printing.
- Use the ink cartridge within 2 years from the date printed on the package.
  Using an ink cartridge after this period may affect print quality.
- Replace the ink cartridge six months after installing it to the printer.
- Do not insert or remove an ink cartridge more than 10 times.
  If the ink cartridge is inserted or removed 10 times or more, it cannot be used even if there is some remaining ink inside.

4. Attach the new ink cartridge.
5. Confirm that the operation panel returns to Normal.

NOTE

- If the ink cartridge is replaced during printing, printing restarts.

- Ink cartridge replacement is complete.

6.1.2 Replacing roll media

This sub-section describes when and how to replace roll media.

(1) Replacement time

Replace roll media in the following situations.

a. When the roll media loaded in the printer runs out

- "End Of Roll" is displayed on the operation panel.
- If media runs out during printing, the printer stops printing.

b. When you want to change the media type to use

(2) Type

TIP

- For types and details of roll media, refer to "8.3 Options/Supply list".

(3) Replacing steps

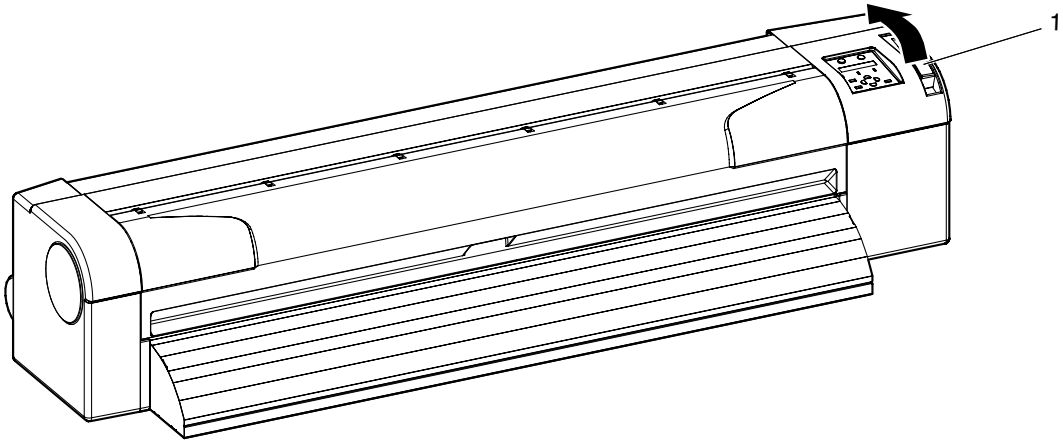
Follow the procedure below to replace roll media.

1. If the printer is turned ON, confirm that operation such as printing is not in progress.

CAUTION

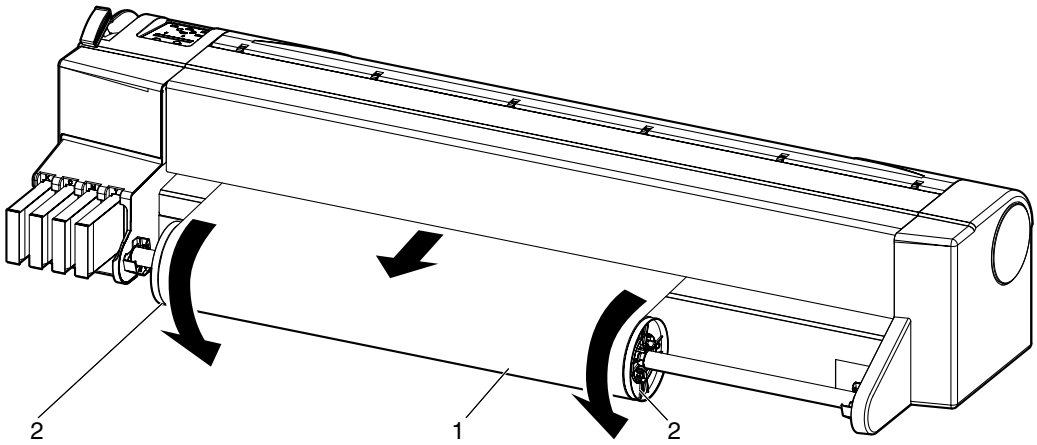
- **Be careful not to trap your fingers when opening and closing the media cover.**

2. Push the media loading lever to the back.



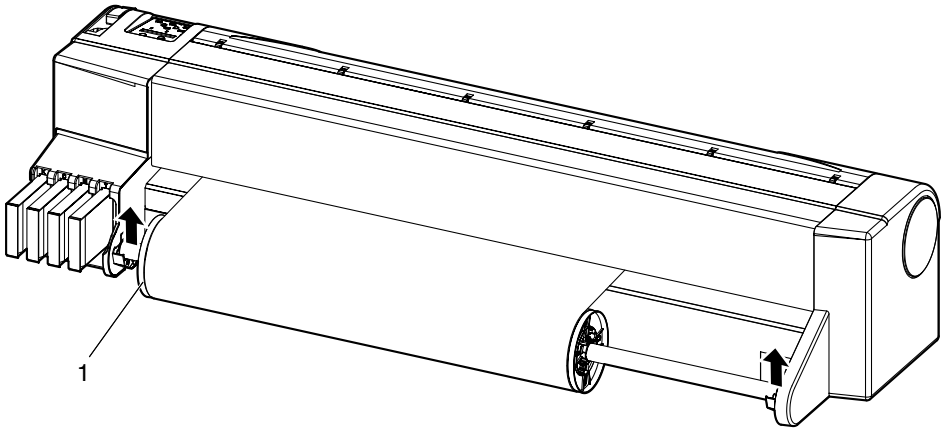
No.	Name
1	Media loading lever

3. Lift both ends of the scroller, and manually rewind the roll media.



No.	Name
1	Roll media
2	Scroller

4. Remove the scroller from the printer, and place it on a horizontal place.

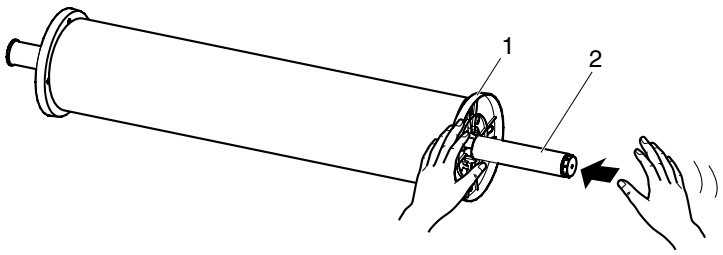


No.	Name
1	Scroller

5. Hold the movable flange, and tap the scroller as illustrated below to remove the movable flange.

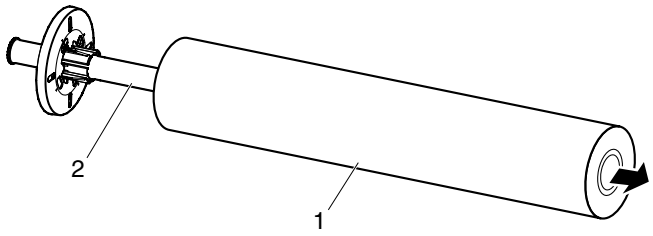
NOTE

- When removing roll media, do not give a shock to the left end of the scroller (movable flange side) by dropping it to the floor. Doing so may damage the left end of the scroller due to the shock.



No.	Name
1	Movable flange
2	Scroller

6. Remove roll media from the scroller.



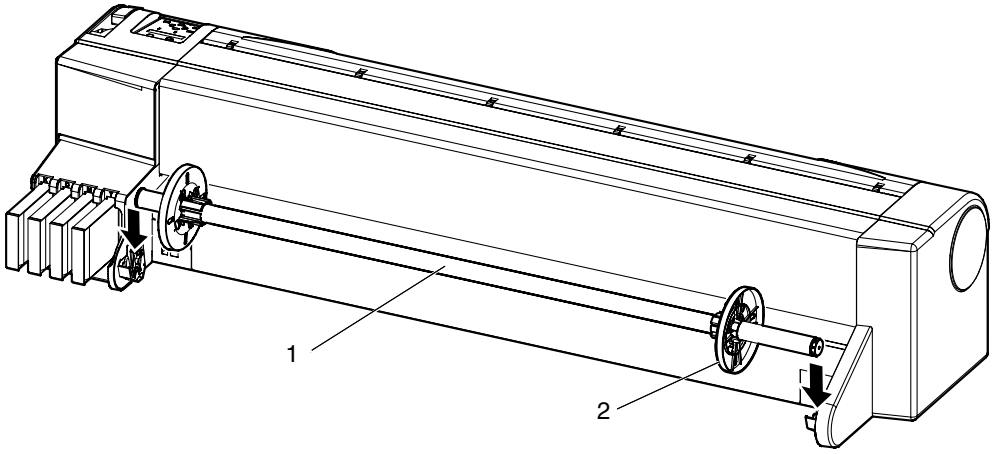
No.	Name
1	Roll media
2	Scroller

7. To load another roll media, refer to the following.

TIP

- For loading roll media, refer to "3.4 Setting media".
- For storing roll media not in use, refer to "4.2.3 Precaution on storing media".

8. When you do not set roll media, attach the movable flange to the scroller to set the scroller to the printer.



No.	Name
1	Movable flange
2	Scroller

6.1.3 Replacing waste fluid box

This sub-section describes the replacement time and steps of waste fluid box.

(1) Replacement time

Replace waste fluid box when the following situation occurs.

a. If "NearFullWasteInkTank" is displayed on the operation panel

- Waste fluid box shortly becomes full.
- Printing operation continues.
- Replace the waste fluid box.

b. If "FullWasteInkTank" is displayed on the operation panel

- The waste fluid box is full.
- Printing operation stops.
- Immediately replace the waste fluid box.

(2) Type

The waste fluid box that can be used with this printer is as follows.

Description	Model No.
Waste fluid box	VJ12-HEB

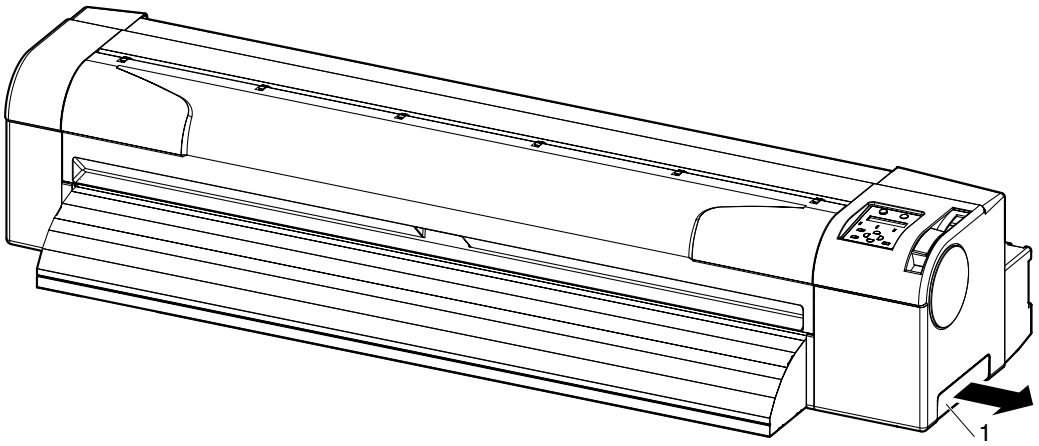
(3) Replacing steps

Follow the procedure below to replace the waste fluid box.

WARNING

- **The waste fluid from the printer is industrial waste. Proper waste fluid disposal according to industrial waste disposal laws and ordinances of your local government is required. Consign disposal of waste fluids to a specialized processor.**

1. Confirm that the printer is turned ON.
2. Pull out the waste fluid box.



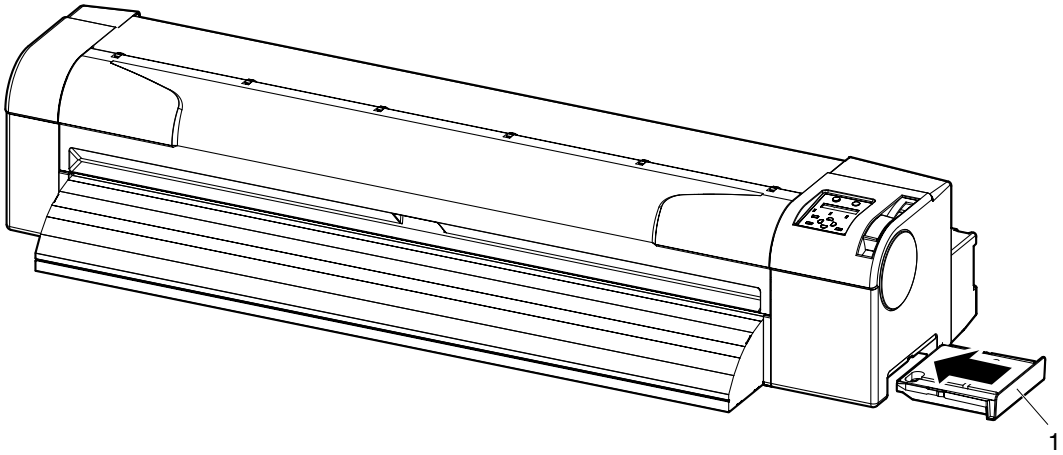
No.	Name
1	Waste fluid box

- "No Waste-Ink Tank" is displayed on the operation panel.

NOTE

- A used waste fluid box should be put in a vinyl bag and disposed of in compliance with the local ordinance and instructions of the local authority.

3. Install the new waste fluid box into the printer.



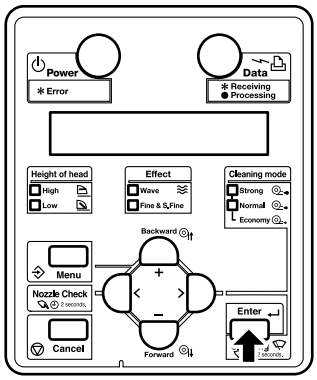
No.	Name
1	Waste fluid box

4. Check that "Exchange Tank? No" is displayed on the operation panel.

5. Select "Exchange Tank? Yes", and press the [Enter] key on the operation panel.

NOTE

- If the waste fluid box is not replaced, press the [Enter] key on the operation panel with "Exchange Tank? No" displayed.



- This completes the replacement of waste box.

6.1.4 Replacing the flushing-box sponges

This section explains how to replace the flushing-box sponges.

(1) Replacement time

Replace the flushing-box sponges in the following situations.

a. When the flushing-box sponge becomes deformed

b. When smears of ink appear on media

c. Two months after replacement

(2) Type

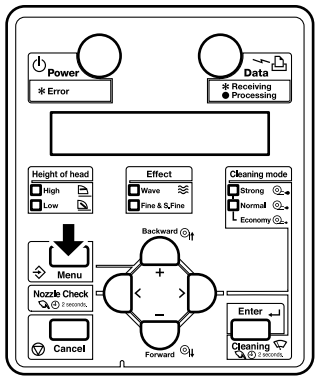
TIP

- For types and details of the flushing-box sponge, refer to "8.3 Options/Supply list".

(3) Replacing steps

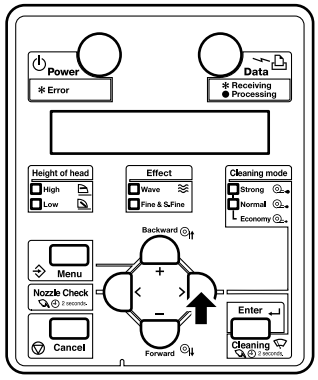
Follow the steps below to replace the flushing-box sponges.

1. If the printer is turned ON, make sure the following.
   - Printing or other operations are not in progress.
   - The operation panel display is Normal.
2. Display the CR Maintenance menu on the operation panel.
   a. Press the [Menu] key on the operation panel.



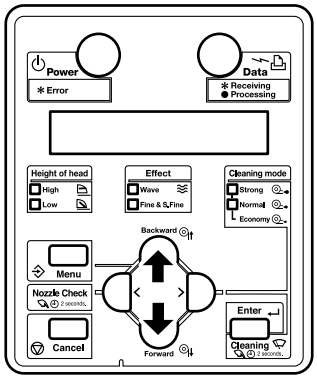
   - "Menu 1: Setup>" is displayed on the operation panel.
   - The operation panel shifts to the Setup menu display.

   b. Press the [>] key on the operation panel.

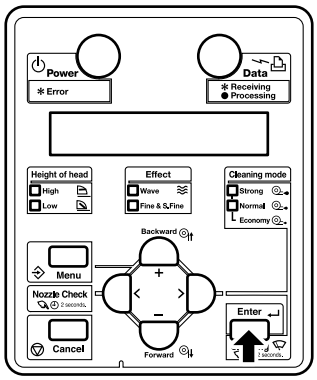


   - "Set1: MediaType" is displayed on the operation panel.

c. Press the [+] key or [–] key to select "Set20: CR Maintenance".

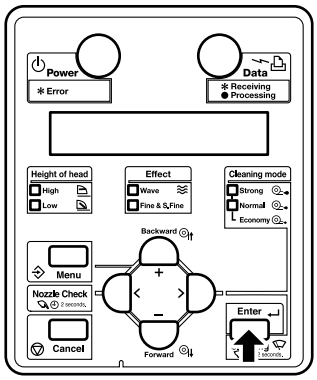


d. Press the [Enter] key on the operation panel.



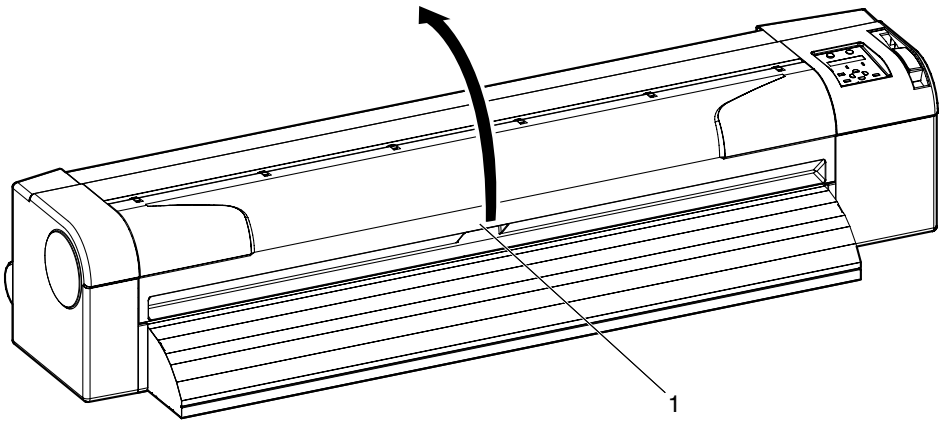
- "CR Mainte.: Start" is displayed on the operation panel.
- The display enters the CR Maintenance menu.
  ☞5.1.18 CR Maintenance menu

3. Press the [Enter] key on the operation panel.



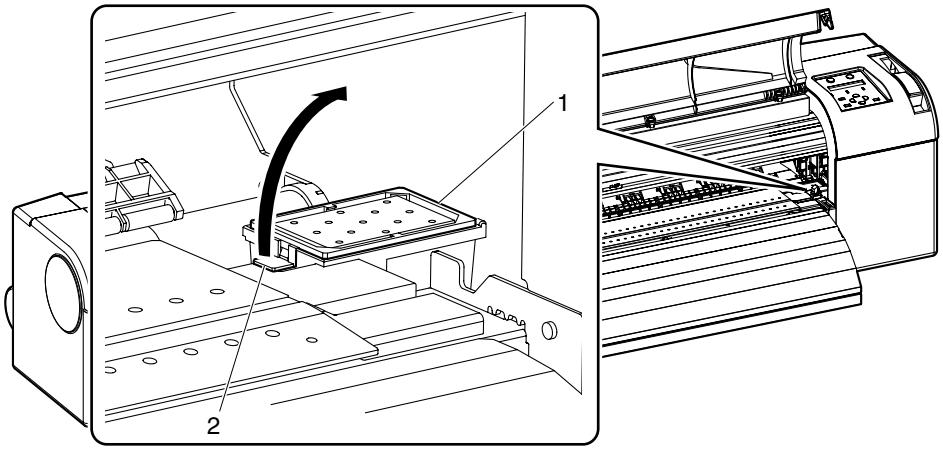
- Maintenance starts.
- The print head moves to center.
- "CR Mainte.: End" is displayed on the operation panel.

4. Open the front cover.



No.	Name
1	Front cover

5. Lift the flushing-box sponge hook and release the hook. Then, remove the flushing-box sponge holder.

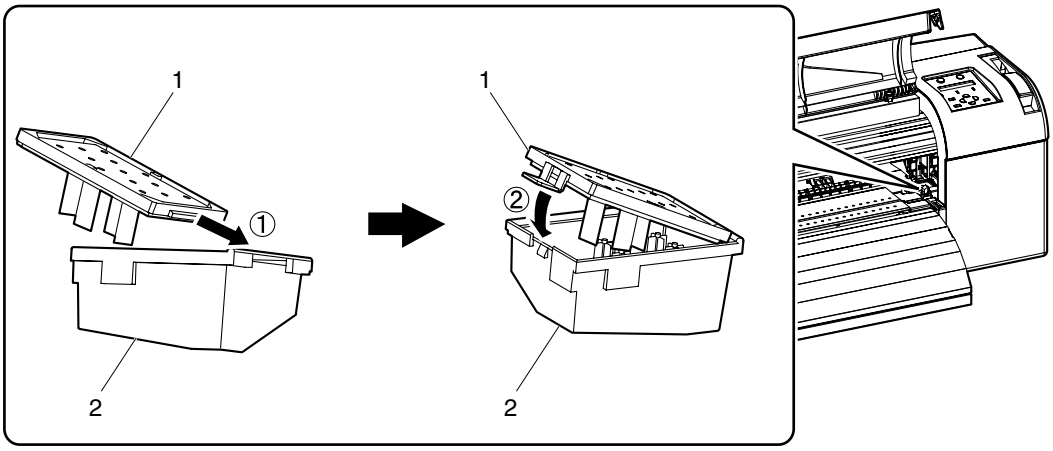


No.	Name
1	Flushing-box sponge holder
2	Flushing-box sponge hook

NOTE

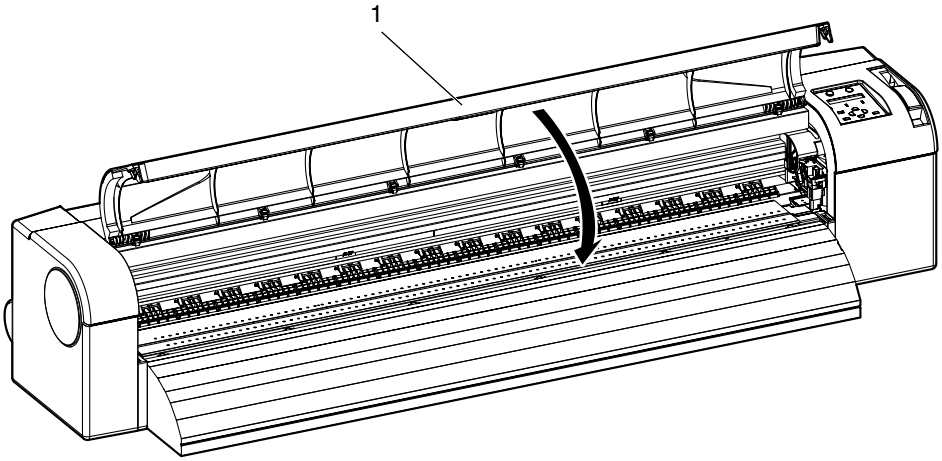
- If there is a sponge from each flushing box, remove it using forceps.

6. Install the new flushing-box sponge to each flushing-box.



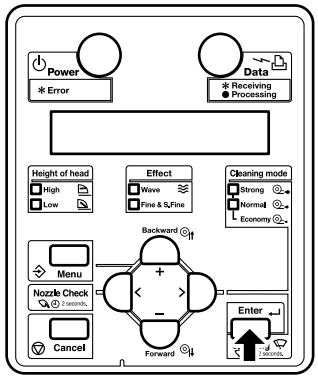
No.	Name
1	Flushing-box sponge holder
2	Flushing box

7. Close the front cover.



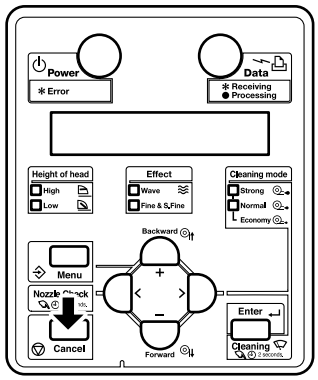
No.	Name
1	Front cover

8. Press the [Enter] key on the operation panel.



- The print head returns to its original position.
- "CR Mainte.: Start" is displayed on the operation panel.

9. Press the [Cancel] key on the operation panel several times.



- The printer enters Normal.
- Flushing-box sponge replacement is complete.

6.2 Cleaning the printer

Periodic (every month) cleaning is necessary to use the printer in good condition.

WARNING

- **Do not insert or drop metal or flammable objects into the printer through openings such as a fresh air inlet. It could lead to an electric shock or fire.**
- **If foreign substances or liquids such as water entered the printer, do not use the printer as it is. It could lead to an electric shock or fire. Immediately turn OFF the power switch, disconnect the power plug from the electric socket, and contact your local MUTOH dealer.**

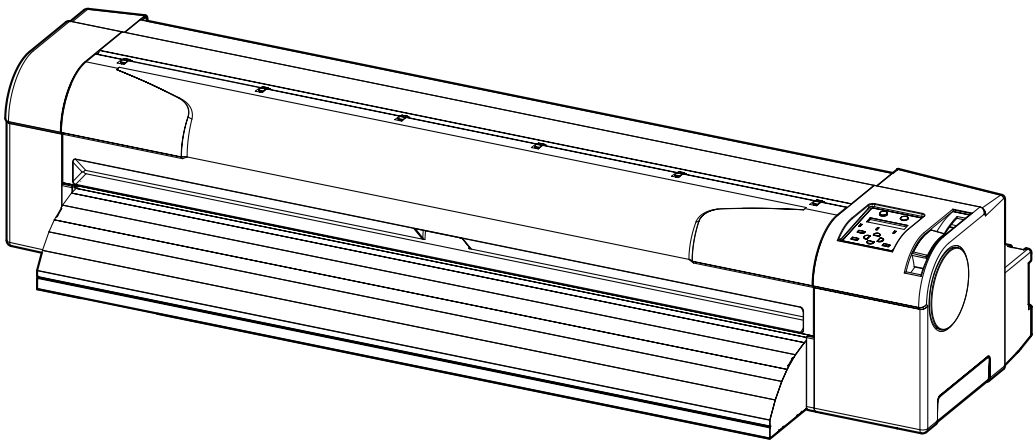
CAUTION

- **When cleaning the printer, be sure to turn OFF the power and disconnect the power plug.**
- **Do not use volatile solvents such as thinner, benzene, or alcohol. These solvents could cause damage to the paint.**
- **Be careful that no moisture enters the printer. There is a possibility that the electric circuit inside the printer is short circuited.**
- **Do not open covers attached using screws under any circumstances. This may cause an electric shock or a malfunction.**

This section describes how to clean each part of the printer.

6.2.1 Cleaning the outer case

This sub-section describes how to clean the outer case.
Wipe out dust and dirt attached to the outer case by using a soft cloth.

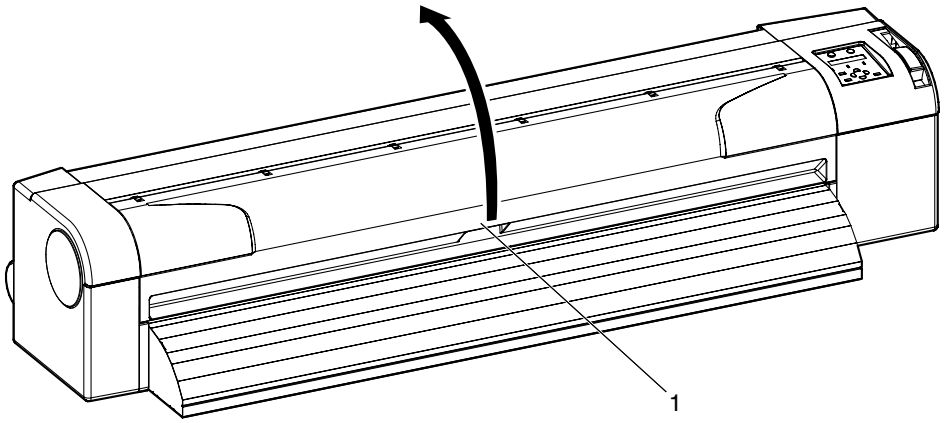


6.2.2 Cleaning the inside of the printer

This sub-section describes how to clean the inside of the printer.

Follow the procedure below.

1. Open the front cover.

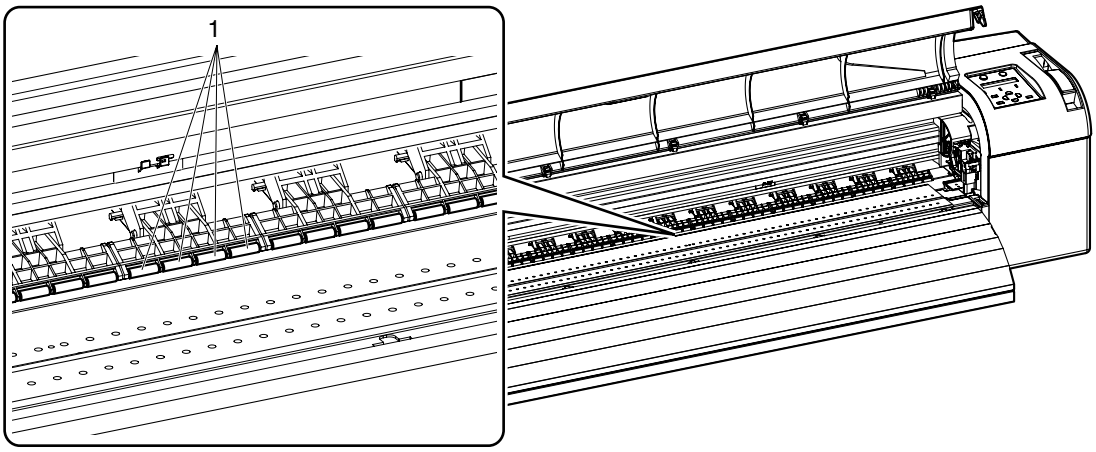


No.	Name
1	Front cover

2. Remove paper powder and dust attached to the pressurizing rollers using a soft brush.

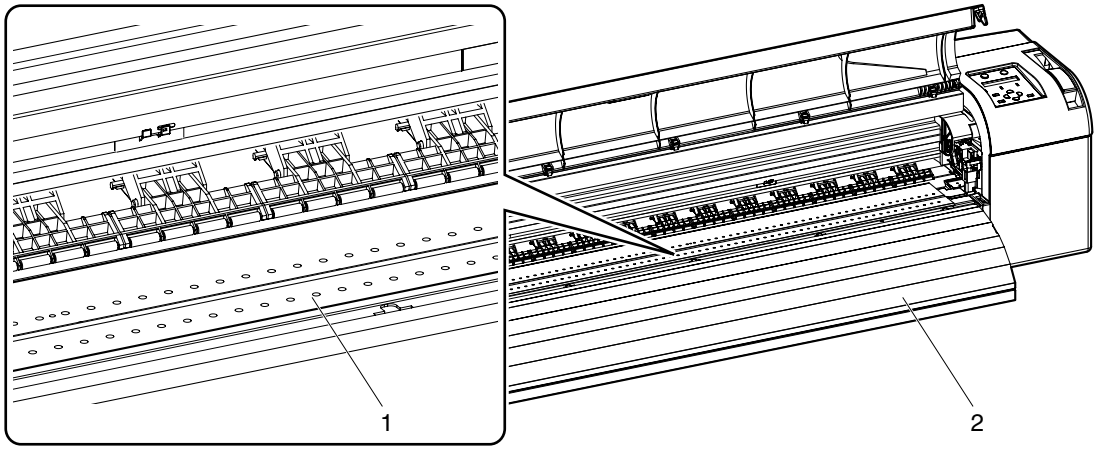
NOTE

- Do not blow paper powder inside the printer using tools such as an air duster. It may cause an abnormal noise from the inside of the printer.



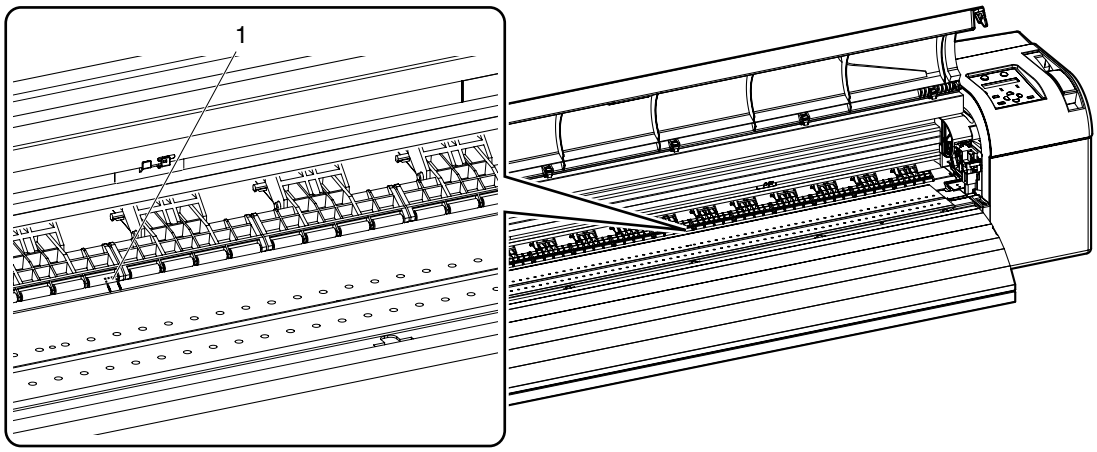
No.	Name
1	Pressurizing rollers

3. Apply a damp and tightly squeezed soft cloth to wipe out paper powder and ink attached to the platen and media guide.



No.	Name
1	Platen
2	Media guide

4. Apply a damp and tightly squeezed soft cloth to wipe off the dirt of the unpainted (silver color) area in the center of the grid roller.



No.	Name
1	Grid roller

6.2.3 Head cleaning

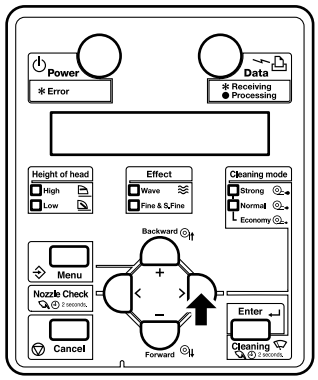
If printed data is blurred or lacks part of it, clean the print head surface and nozzle (Head cleaning).

Follow the procedure below to perform Head cleaning.

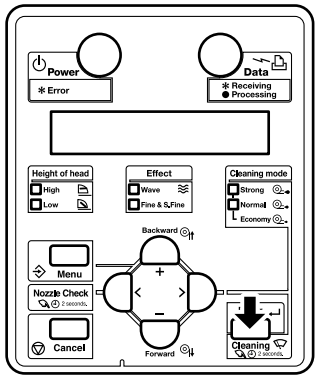
NOTE

- When not using the printer for a long period (one week or more), perform Head cleaning once a week.
  If not performing Head cleaning, the print head is clogged. Doing so will preserve print quality.
- Remove media when cleaning.
  Cleaning with media loaded may lead to contact between the print head and media.

1. Confirm that the operation panel is Normal.
2. Confirm that the media loading lever is returned to the front.
3. Press the [>] key on the operation panel to select the cleaning mode.



4. Press the [Cleaning] key on the operation panel for at least 2 seconds.



- Start Head cleaning.
- "Cleaning **%" is displayed on the operation panel.
- After Head cleaning is complete, the operation panel shifts to Normal.

NOTE

- If you fail to remove blurs or incompleteness of printing in one Head cleaning, perform Long cleaning.
- If blurs or lacking parts in printed media do not disappear with several times of Head cleaning, refer to "7 Troubleshooting", and take appropriate measures.

6.2.4 Cleaning the cleaning wiper

This sub-section describes how to clean the cleaning wiper.

(1) Cleaning time

Once a week, or when blurs or lacking parts appear on printed media after Head cleaning.

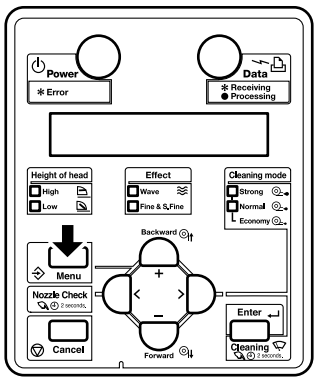
(2) Cleaning method

Follow the procedure below to clean the cleaning wiper.

NOTE

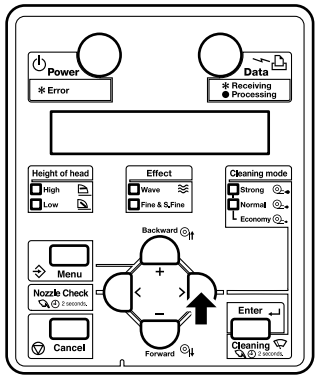
- Use the poly-knit wiper to clean the cleaning wiper.
  For the poly-knit wiper, refer to "8.3 Options/Supply list".

1. If the printer is turned ON, make sure the following.
   - Printing or other operations are not in progress.
   - The operation panel display is Normal.
2. Display the CR Maintenance menu on the operation panel.
   a. Press the [Menu] key on the operation panel.



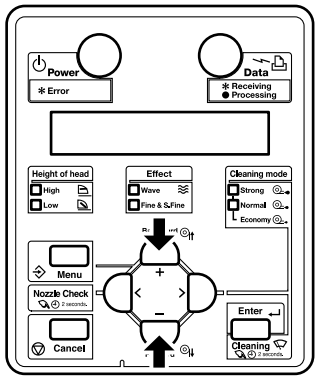
   - "Menu 1: Setup>" is displayed on the operation panel.
   - The operation panel shifts to the Setup menu display.

b. Press the [>] key on the operation panel.

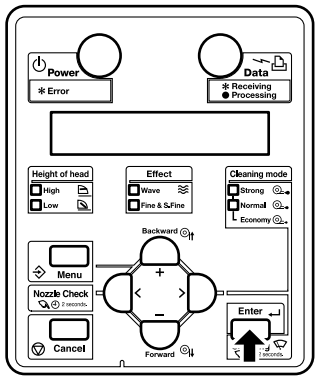


- "Set1: MediaType" is displayed on the operation panel.

c. Press the [+] key or [–] key to select "Set20: CR Maintenance".

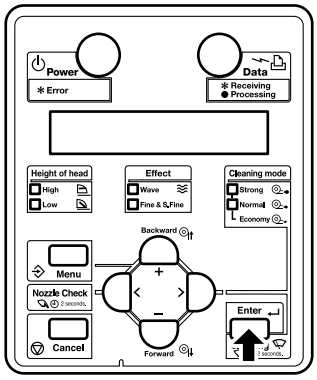


d. Press the [Enter] key on the operation panel.



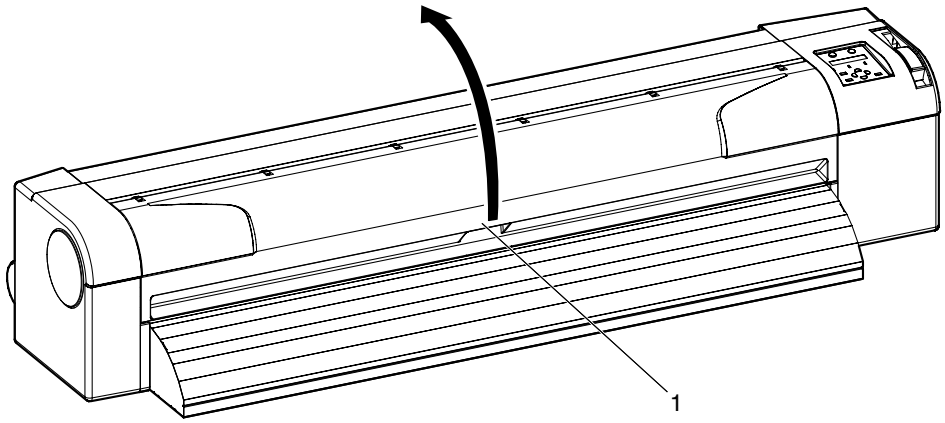
- "CR Mainte.: Start" is displayed on the operation panel.
- The display enters the CR Maintenance menu.
  ☞5.1.18 CR Maintenance menu

3. Press the [Enter] key on the operation panel.



- Maintenance starts.
- The print head moves to center.
- "CR Mainte.: End" is displayed on the operation panel.

4. Open the front cover.



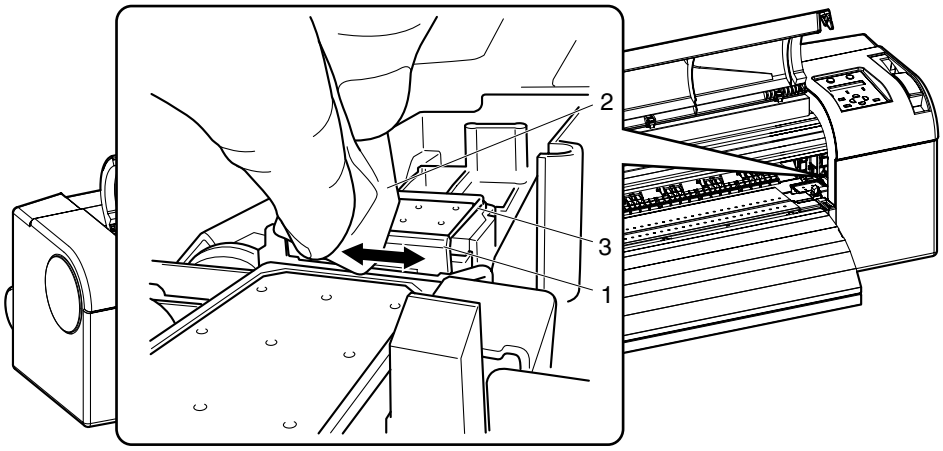
No.	Name
1	Front cover

CAUTION

- **While cleaning the cleaning wiper**
  - **Do not touch the cleaning wiper and head cap unit.**
    Head cleaning may not be performed correctly because of oil from your hands.
  - **Make sure to wipe the print head with a dry poly-knit wiper.**
    A wet poly-knit wiper may cause the print head to clog.

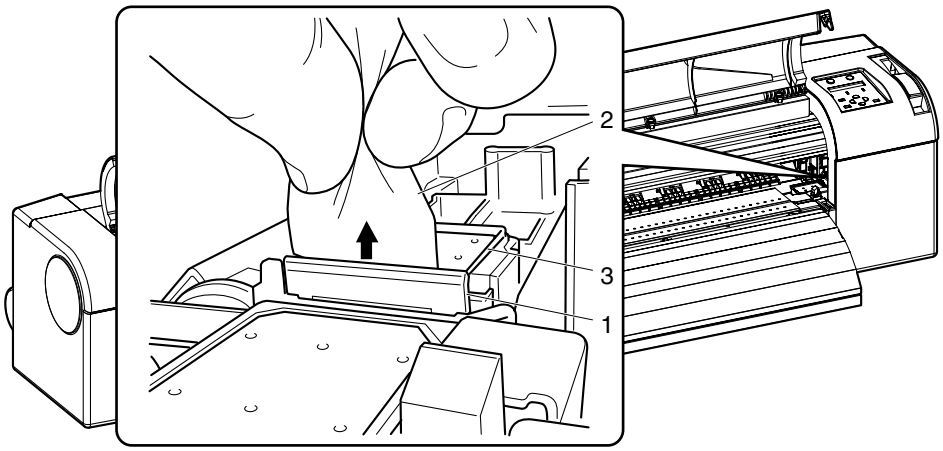
5. Use the poly-knit wiper to remove the ink and dust on the cleaning wiper.

   a. Cleaning wiper front side:
   Remove the ink and dust to right and left.



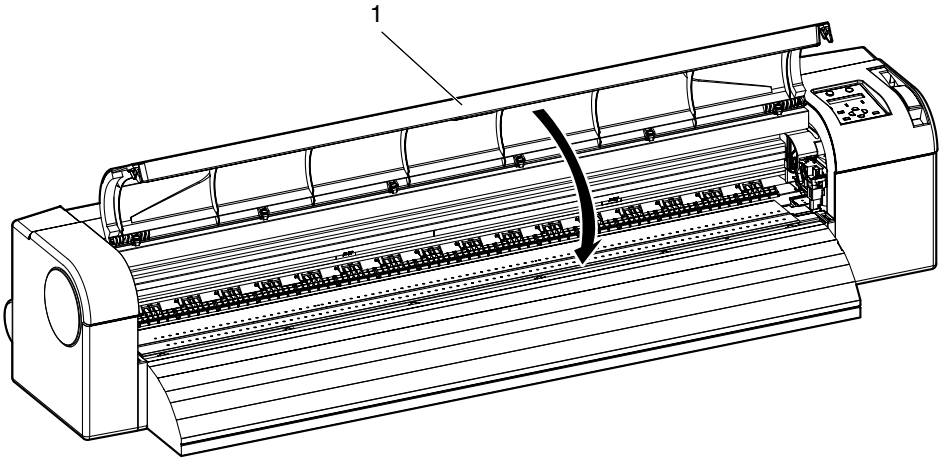
No.	Name
1	Cleaning wiper
2	Poly-knit wiper
3	Head cap unit

   b. Cleaning wiper back side:
   Remove the ink and dust upward.



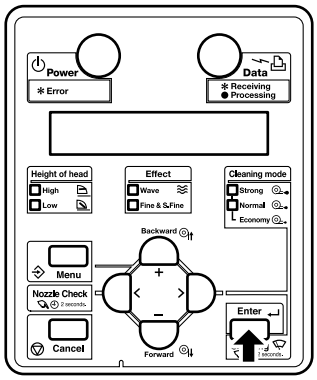
No.	Name
1	Cleaning wiper
2	Poly-knit wiper
3	Head cap unit

6. Close the front cover.



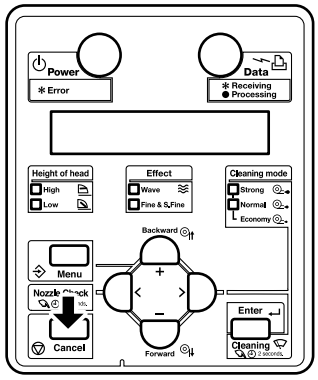
No.	Name
1	Front cover

7. Press the [Enter] key on the operation panel.



- The print head returns to its original position.
- "CR Mainte.: Start" is displayed on the operation panel.

8. Press the [Cancel] key on the operation panel.



- The printer enters Normal.
- Cleaning of the cleaning wiper is complete.

6.3 Moving or transporting the printer

This section describes how to move or transport the printer.

6.3.1 Moving the printer

This sub-section describes how to move the printer.

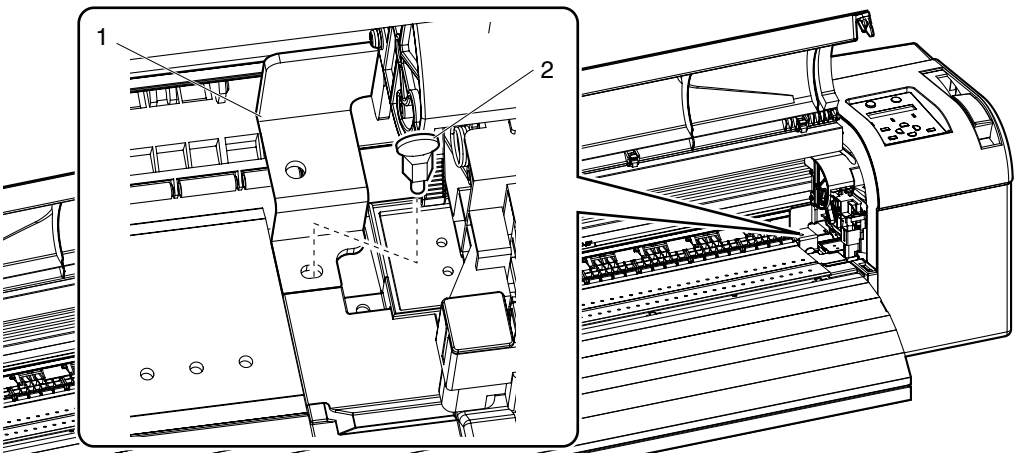
CAUTION

- **Move the printer maintaining a horizontal position.**
- **Do not slant the printer, prop it against a wall or turn it upside down. There is a possibility that ink inside the printer may leak. Moreover, normal operation after shifting (to these positions) cannot be guaranteed.**

(1) Preparation before moving

When using a dedicated stand, follow the procedure below to move the printer.

1. Make sure that the printer is turned OFF.
2. Check that the butterfly bolts (2) attaching the stand and the printer are not loosen.
3. Check that the printer head is in the rightmost position.
4. Attach the head unit fastening material, and attach it with thumbscrews.



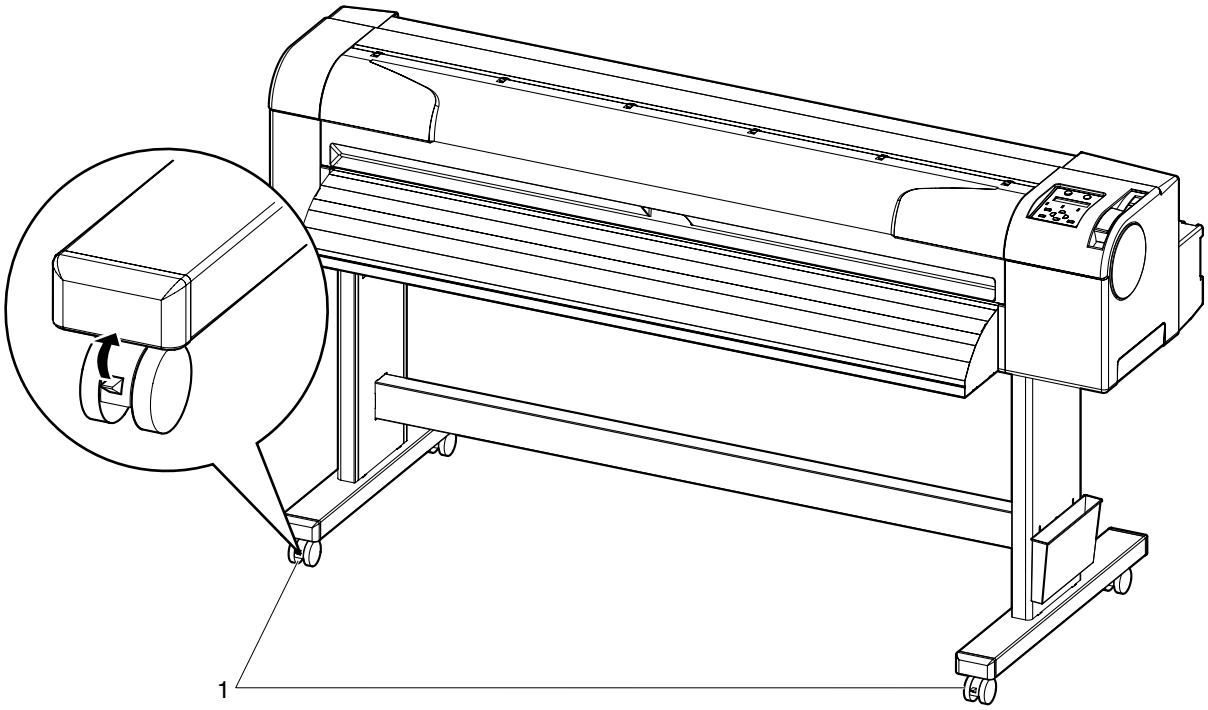
No.	Name
1	Head unit fastening material
2	Thumbscrew

5. Remove the scroller.
6. Remove all the cables, such as the power cable.

7. Release the lock of the caster and transfer it.

NOTE

- The casters supplied with the dedicated stand are manufactured for little movement in flat indoor areas, not for transporting equipment.
  When moving the printer outdoors in places with big step differences, move the stand and printer separately.
  ☞Installation manual



No.	Name
1	Caster

(2) Reinstalling

After moving the printer, follow the procedure below to set it ready for use.

1. Select a suitable place for installation.

   ☞Installation manual

2. Move and install the printer to the location.
3. Check the butterfly bolts (2) fixing the stand and the printer are not loosen when using a dedicated stand.
4. Attach cables, such as the power cable.

   ☞3.1 Power cable connection
   ☞3.7 Connecting the printer to a PC

5. Perform Nozzle check, and then confirm that there is no clogging in the print head.

   ☞3.5.1 Nozzle check

6. Perform Alignment.

   ☞3.6 Adjust print

6.3.2 Transporting the printer

When transporting the printer, make sure to pack it in the same condition as purchased, using protective and packing materials to protect the printer from vibration and shocks.

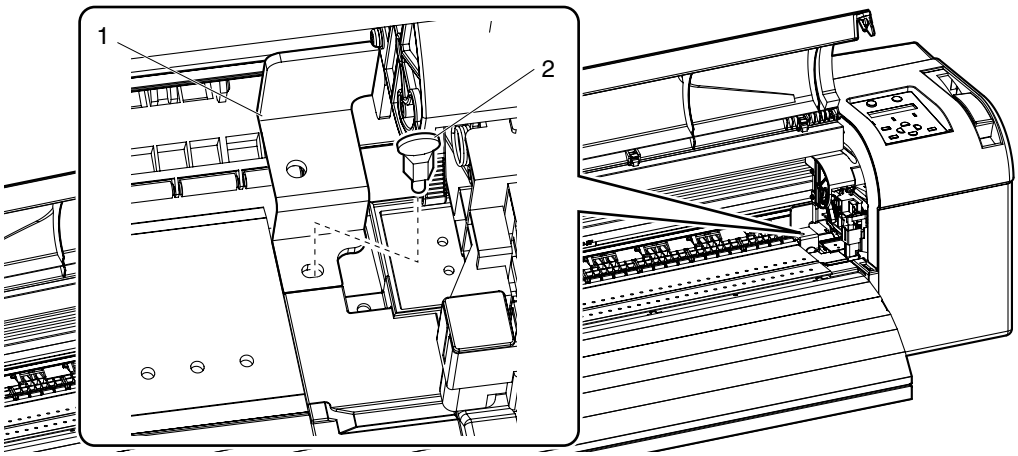
NOTE

- When transporting the printer, consult the MUTOH product dealer at your point of purchase.

(1) Pre- transport procedure

1. Turn the unit ON.
2. Confirm that the printer functions normally.
3. Remove all ink cartridges.
4. Turn OFF the power of the printer.
   - "Transport Mode" is displayed on the operation panel and the printer starts ejecting ink.
   - Ink rejecting takes about 3 minutes.
5. When ink discharge completes, check that the Power lamp disappears.
6. Remove the scroller.
7. Remove all the cables, such as the power cable.

8. Attach the head unit fastening material, and attach it with thumbscrews.



No.	Name
1	Head unit fastening material
2	Thumbscrew

9. Remove the printer from the stand.

   ☞Installation manual

10. Repack the printer.

(2) Post-transport procedure

1. Perform unpacking, assembling, and setting the printer.

   ☞Installation manual

2. Set the printer in an available condition.

   ☞6.3.1 Moving the printer of (2) Reinstalling

7 Troubleshooting

This chapter describes possible troubles during the use of this product and countermeasures.

If an error not included in any items of this section occurs, contact your local MUTOH dealer.

NOTE

- If you want to receive product warranty, prepare the warranty certificate. If the warranty certificate is not presented, the repair will not be covered by the warranty even if within the warranty period. If you have signed a maintenance service contract, prepare that or a similar document.

7.1 Malfunctions and failures

This section describes undisplayed malfunctions and failures of the printer, possible causes and countermeasures.

7.1.1 Problems in installation and introduction

(1) Cannot perform ink replenishment

No.	Possible cause	Remedy	Reference
1	Is the front cover open or media loading lever raised?	Close the front cover, or lower the media loading lever.	☞3.4 Setting media
2	Are the four ink cartridges fully inserted?	Fully insert the four ink cartridges.	☞6.1.1 Replacing ink cartridges
3	Is the waste fluid box fully inserted?	Fully insert the waste fluid box.	☞6.1.3 Replacing waste fluid box

(2) Ink does not come out after ink replenishment

No.	Possible cause	Remedy	Reference
1	Is the ink cartridge cold and frozen?	Leave the cartridge at room temperature for at least 3 hours, and perform cleaning several times.	☞6.2.3 Head cleaning
2	Is the power turned OFF during ink replenishment?	Turn the power ON again and continue ink replenishment.	☞3.3 Installing ink cartridges
3	Occasionally, normal printing cannot be performed after ink replenishment.	Perform cleaning several times, and check it each time.	☞6.2.3 Head cleaning

7.1.2 Cannot print at all

(1) Does not work at all after power activation

No.	Possible cause	Remedy	Reference
1	Is the power cable connected to the plug?	Connect the power cable.	☞3.1 Power cable connection
2	Does the AC power supply provide the specified voltage?	Connect the cable to another outlet.	☞3.1 Power cable connection
3	Is the front cover open or media loading lever raised?	Close the front cover. Lower the media loading lever.	☞3.4 Setting media
4	Is the waste fluid box fully inserted?	Fully insert the waste fluid box.	☞6.1.3 Replacing waste fluid box

(2) Does not work after loading the media

No.	Possible cause	Remedy	Reference
1	Is the front cover open or media loading lever raised?	Close the front cover. Lower the media loading lever.	☞3.4 Setting media
2	Is the media loaded at an angle?	Load the media straight.	☞3.4 Setting media
3	Is the ink cartridge inserted?	Insert the ink cartridge.	☞3.3 Installing ink cartridges
4	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
5	Is the printer being used in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	☞Installation manual

(3) When data is sent from the computer, an error occurs at the printer and nothing is printed

No.	Possible cause	Remedy	Reference
1	Is the type of printer selected correctly at the computer?	Check that the printer type settings on the computer side and printer side are the same.	☞3.7 Connecting the printer to a PC
2	Are the interface requirements and command mode the same on the computer side and printer side?		

(4) Cannot use the computer online using LAN

No.	Possible cause	Remedy	Reference
1	Is the network interface cable connected correctly?	Confirm the types of the cross and straight cables, and connect the network interface cable correctly.	☞3.7.3 Connecting a network interface cable
2	Are the network settings configured correctly?	Configure the network settings correctly.	☞5.1.21 IP Address menu to 5.1.23 Gateway menu
3	Match the printer's network settings with the computer side environment.	Match this product's network settings with the computer side environment.	☞3.7.1 System requirements
4	Does the Data lamp on the operation panel turn on after sending printing data from the computer?	If the Data lamp does not turn on, contact the computer manufacturer.	—

7.1.3 Media-related troubleshooting

(1) The media slips or is torn during initialization

NOTE

- If the media is jammed or torn, remove it according to "7.3 The media is jammed".

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Is the loading position of the media correct?	Set the media correctly.	☞3.4.2 Setting roll media
3	Is the scroller set correctly?	Set the scroller correctly.	☞3.4.1 Loading roll media
4	Are there any foreign materials such as paper attached to the pressurizing roller?	Clean the pressurizing roller.	☞6.2.2 Cleaning the inside of the printer
5	Is the printer being used in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	☞Installation manual
6	Are you using folded, torn or rolled media?	Replace the media.	☞4.2.2 Cautions on handling media
7	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	☞4.2.1 Media type ☞5.1.1.1.7 Vacuum Fan menu

(2) The media is crumpled during initialization

NOTE

- If the media is jammed or torn, remove it according to "7.3 The media is jammed".

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Is the loading position of the media correct?	Set the media correctly.	☞3.4.2 Setting roll media
3	Is the media loaded at an angle?	Set the media straight.	☞3.4.2 Setting roll media
4	Are there any foreign materials such as paper attached to the pressurizing roller?	Clean the pressurizing roller.	☞6.2.2 Cleaning the inside of the printer
5	Is the printer used in an environment other than the one specified, such as near an air conditioner?	Only use the printer in an environment that is specified for use.	☞Installation manual
6	Are you using folded, torn or rolled media?	Replace the media.	☞4.2.2 Cautions on handling media

(3) The wrong media size is set during initialization

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Is the media loaded at an angle?	Set the media straight.	☞3.4.2 Setting roll media
3	When the media is set, does it curl upward?	Straighten the media or set a new media.	☞3.4.2 Setting roll media
4	Is the printer used in an environment other than the one specified, such as near an air conditioner?	Only use the printer in an environment that is specified for use.	☞3.4.1 Loading roll media
5	Are you using media that has been printed on already?	Use a new media.	☞4.2.1 Media type

(4) Media jams frequently occur

NOTE

- If media other than the recommended one is used, correct media feeding cannot be assured.

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Is the media used in an environment other than the one specified?	Use the media in a dedicated environment.	☞4.2.2 Cautions on handling media
3	Are you using the old media?	Replace it with new media.	☞6.1.2 Replacing roll media
4	Are you using the folded or wrinkled media?		
5	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	☞4.2.1 Media type ☞5.1.1.1.7 Vacuum Fan menu

(5) The media veers during printing

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Is the loading position of the media correct?	Set the media correctly.	☞3.4.2 Setting roll media
3	Is the scroller set correctly?	Set the scroller correctly.	☞3.4.1 Loading roll media

7.1.4 Printing-related troubleshooting

(1) Printing is partially stained or incomplete

NOTE

- Proper print quality may not be obtained with the media other than the recommended one.

No.	Possible cause	Remedy	Reference
1	Does the media include moisture?	Replace it with new media.	☞6.1.2 Replacing roll media
2	Are you using the folded or wrinkled media?		
3	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	☞4.2.1 Media type ☞5.1.1.1.7 Vacuum Fan menu

(2) The printing position is incorrect (some parts of the media cannot be printed on)

No.	Possible cause	Remedy	Reference
1	Is the loading position of the media correct?	Set the media correctly.	☞3.4.2 Setting roll media
2	Did you set up the origin and print position?	Cancel or reset the settings of the origin and print position.	☞5 Panel setup menu

(3) Printing is blurred

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Are you using the thick or thin media?	Use the recommended media.	☞4.2.1 Media type
3	Is the media printed on the printing surface?	Confirm the printing surface of the media and set it correctly.	☞3.4 Setting media
4	Did you perform Alignment?	Perform Alignment.	☞3.6 Adjust print
5	Did you perform Media feed compensation?	Perform Media feed compensation.	☞4.2.6 Media feed compensation
6	Is each heater set to the appropriate temperature?	Set it to the appropriate temperature.	☞5.1.1.1.3 Pre Heater menu to 5.1.1.1.5 After Heater menu
7	Is the head height set to High?	Return the head height to "Normal (Low)".	☞4.2.5 Head height adjustment

(4) White or black lines appear on printed media

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
2	Is the scroller set correctly?	Set the scroller correctly.	☞3.4.1 Loading roll media
3	Is the nozzle in good condition?	Perform Head cleaning.	☞6.2.3 Head cleaning
4	Did you perform Alignment?	Perform Alignment.	☞3.6 Adjust print
5	Did you perform Media feed compensation?	Perform Media feed compensation.	☞4.2.6 Media feed compensation
6	Is each heater set to the appropriate temperature?	Set it to the appropriate temperature.	☞5.1.1.1.3 Pre Heater menu to 5.1.1.1.5 After Heater menu
7	Is the head height set to High?	Return the head height to "Normal (Low)".	☞4.2.5 Head height adjustment

(5) Printing lines are not straight

No.	Possible cause	Remedy	Reference
1	Is the ink cartridge within the validity period?	Use a new ink cartridge.	☞6.1.1 Replacing ink cartridges
2	Are you using the recommended media?	Use the recommended media.	☞4.2.1 Media type
3	Did you perform Alignment?	Perform Alignment.	☞3.6 Adjust print
4	Did you perform Media feed compensation?	Perform Media feed compensation.	☞4.2.6 Media feed compensation

(6) Printing lines are duplicated or patchy

No.	Possible cause	Remedy	Reference
1	Is the nozzle in good condition?	Perform Head cleaning.	☞6.2.3 Head cleaning
2	Is the head height set to High?	Return the head height to "Normal (Low)".	☞4.2.5 Head height adjustment

7.2 Error messages

This section describes messages displayed during normal printer operation or when errors occur, and solutions to the messages.

7.2.1 Status messages

This section describes messages displayed during printer normal operation.
When the product is operating correctly, each operation status is displayed on the operation panel as below.

No.	Display	Description	Reference
1	Ready to Print	Standby (Media is loaded).	—
2	Media End	Standby (Media is not loaded).	☞3.4 Setting media
3	Receiving	Receiving data.	—
4	Converting	Analyzing data.	—
5	Printing	Under printing.	—
6	Warming Up	Warming up the heater.	—
7	Cleaning **%	Cleaning the head. Please wait a while.	☞6.2.3 Head cleaning
8	Ink Refill **%	Filling the ink. Please wait a while.	☞3.3 Installing ink cartridges
9	Busy-Washing	Cleaning the print head by cleaning fluid. Please wait a while.	☞3.3 Installing ink cartridges
10	Moving Origin Pos.	The print head is moving to the original printing position in the Origin setup menu. Please wait a while.	☞5.1.8 Origin menu
11	Confirm Position – >E	The print head is moving to the original printing position in the Origin setup menu. Press the [Enter] key.	☞5.1.8 Origin menu
12	Remove Cartridges	Cleaning the print head. Attach the cleaning cartridge.	☞5.1.17 Longstore menu
13	** Initializing **	Initializing the setting in the Initialization menu. Please wait a while.	☞5.1.19 Initialization menu
14	** Press 2sec. **	The [Cleaning] key or the [Nozzle Check] key is pressed for less than 2 seconds. Press the key for more than 2 seconds again.	☞2.2.3 Operation panel
15	Insert CleaningCart.	Cleaning the print head. Attach the cleaning cartridge.	☞3.3 Installing ink cartridges
16	Insert InkCartridges	Filling the ink. Insert an ink cartridge.	☞3.3 Installing ink cartridges

No.	Display	Description	Reference
17	Transport Mode	Preparing for transportation. Please wait a while.	☞6.3.2 Transporting the printer
18	Media: Type ** OK?	Initializing the media. Please wait a while. (** represents the setup media type.)	☞3.4.3 Setting media type
19	Media Initial		
20	Cover Open	The front cover is open.	☞3.4 Setting media
21	Lever Up	The media loading lever was switched to the back side. Set the media.	☞3.4 Setting media

TIP

- The value of the Authorization Code may be displayed for the display of the option function. For details, contact your local MUTOH dealer.

7.2.2 Error message display and remedies

This section describes error messages and remedies.
Error messages are displayed when certain failures occur during printer operation.
If an error that can be displayed occurs, the printer may display the following error messages on the operation panel and stop operation.
If the printer stops operating, solve the error so that the printer restarts.

No.	Display	Description	Remedy	Reference
1	Undefined Media	Failed in identifying the media. (Stops operation)	Reload the media.	☞3.4 Setting media
2	Media Slant	The media was not fed straight. (Stops operation)	Reload the media.	☞3.4 Setting media
3	End Of Roll	The roll media has run out. (Stops operation)	Load a new roll media.	☞6.1.2 Replacing roll media
4	[****] InkNearEnd	Ink is running out. (Continues operation)	Prepare a new ink cartridge.	☞6.1.1 Replacing ink cartridges
5	[****] Ink End	Ink has run out. (Stops operation)	Replace with the new ink cartridge.	☞6.1.1 Replacing ink cartridges
6	[****] No Cartridge	Cartridge is not inserted. (Stops operation)	Insert an ink cartridge.	☞3.3 Installing ink cartridges
7	[****] Not Original	A genuine ink cartridge is not inserted. (Stops operation)	Insert a genuine ink cartridge.	☞6.1.1 Replacing ink cartridges

No.	Display	Description	Remedy	Reference
8	NearFullWasteInkTank	Waste fluid box shortly becomes full. (Continues operation)	Replace the waste fluid box.	☞6.1.3 Replacing waste fluid box
9	FullWasteInkTank	The waste fluid box is full. (Stops operation)	Replace the waste fluid box.	☞6.1.3 Replacing waste fluid box
10	No Waste-InkTank	The waste fluid box is removed. (Stops operation)	Install the waste fluid box.	☞6.1.3 Replacing waste fluid box
11	Life Times [Head]	The operational life of the print head has almost expired. (Continues operation)	Contact your local MUTOH dealer.	—
12	Life Times [Pump]	The operational life of the pump motor has almost expired. (Continues operation)	Contact your local MUTOH dealer.	—
13	Life Times [CR Motor]	The life CR motor is almost expired. (Continues operation)	Contact your local MUTOH dealer.	—
14	Life Times [PF Motor]	The operational life of the PF motor has almost expired. (Continues operation)	Contact your local MUTOH dealer.	—
15	[****] Check Ink	Printer cannot identify the ink cartridge or correctly.	• Insert the ink cartridge again. • Contact your local MUTOH dealer.	☞6.1.1 Replacing ink cartridges
16	[****] S/C ReadErr	Reading Smart chip has been failed.	Insert Ink cartridges again. If Smart chip still cannot be read, insert new Ink cartridges.	☞6.1.1 Replacing ink cartridges
17	[****] S/C Col.Err	Ink cartridges are inserted in wrong slots.	Insert ink cartridges correctly again.	☞6.1.1 Replacing ink cartridges
18	[*] S/C Ink Err	The ink cannot be used for this printer.	Contact your local MUTOH dealer.	☞6.1.1 Replacing ink cartridges
19	[*] S/C CodeErr	Inserted Ink cartridge is not a proper one.	Contact your local MUTOH dealer.	—
20	[*] Broken Chip	Smart Chip has been broken.	Insert new Ink cartridges.	☞6.1.1 Replacing ink cartridges

NOTE

- The color inside [****] in the error display represents the ink color with a problem.
- If the "No Ink" and "No Cartridge" errors occur simultaneously, "No Cartridge" is displayed.

7.2.3 Data error displayand solutions

This section describes data error messages and remedies.
A data error appears if there is a failure in data communication between your PC and the printer.
If a data error occurs, the following error message appears on the operation panel of the printer and operation stops.
When the cause of the error is solved, the printer starts operating again.

No.	Display	Description	Remedy	Reference
1	I** Error [ ]	An error occurred when receiving data.	Check the communication requirements between the printer and your PC.	☞4.3 Menu setups on the operation panel

NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.

7.2.4 Command error displayand remedies

This section describes command errors and remedies.
A command error is displayed if a certain failure occurs during analysis of the command data sent from your PC to the printer.
If a command error occurs, the following error message appears on the operation panel of the printer and operation stops.
When the error is solved, the printer starts operating again.

No.	Display	Description	Remedy	Reference
1	MH** Error [ ]	An invalid command has been sent from the computer.	Check that the settings on your PC and the printer are the same.	☞4.3 Menu setups on the operation panel

NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.
- The command code representing the error occurred may be indicated in [ ].
- For the settings on your PC side, refer to the Operating Manual attached with your PC.

7.2.5 Error requiring restart

This section describes errors requiring restart and remedies.
An error requiring restart is displayed if a fatal operational failure such as the following occurs.

- When an obstacle that prevents printing occurs
- When a problem occurs with the electrical circuit, such as the PCB, motor and sensor of the printer
- When a failure in the printer control program occurs

If an error requiring restart occurs, the printer stops operating after performing the following operations.

1. The drive power automatically shuts down.
2. All lamps on the operation panel blink, and the buzzer rings continuously.
3. The error message is displayed on the operation panel.

Pressing any key on the operation panel stops the beeping.
For an error requiring restart, operation will return to normal after removing the cause of the error and restarting the printer.
If the same error continues to be displayed, contact the your local MUTOH dealer. Be sure to tell us the code no. of the error message when you contact us.

No.	Display	Description	Remedy	Reference
1	E** Error [ ]	A problem that does not have a remedy has occurred.	1. Remove obstacles such as paper scraps in the drive system. 2. Confirm that the replaced items are correctly attached. 3. Turn OFF the printer power, and turn it ON again after 10 seconds or longer.	☞7.3 The media is jammed ☞6.1 Replacing consumable components

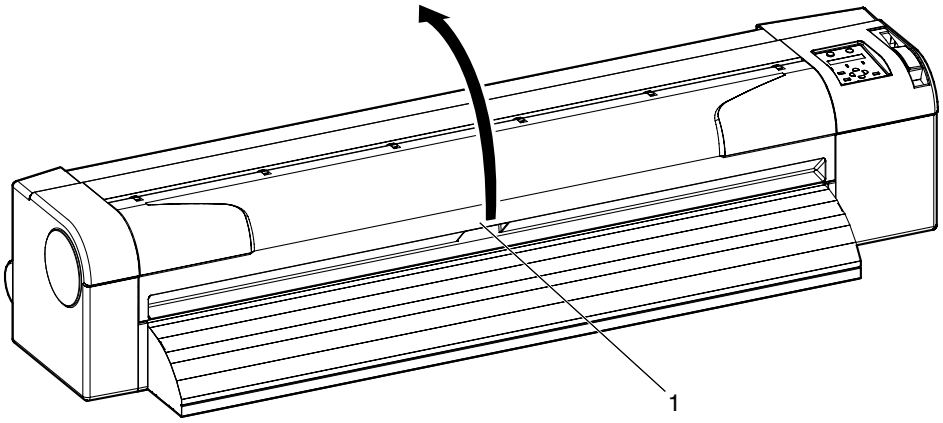
NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.
- The command code representing the error occurred may be indicated in [ ].
- For the settings on your PC side, refer to the Operating Manual attached with your PC.

7.3 The media is jammed

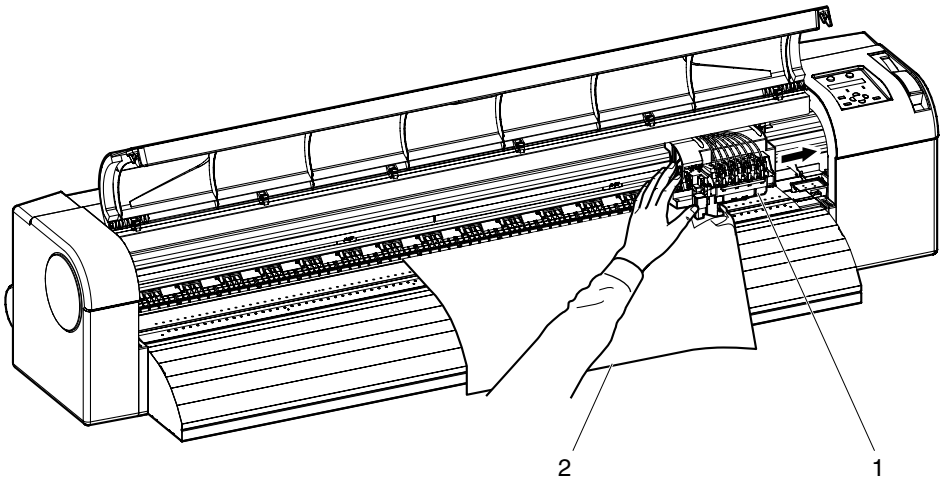
When the set media is jammed, follow the procedure below to remove it.

1. Turn OFF the power of the printer.
   ☞3.2.2 Turning the power OFF
2. Open the front cover.



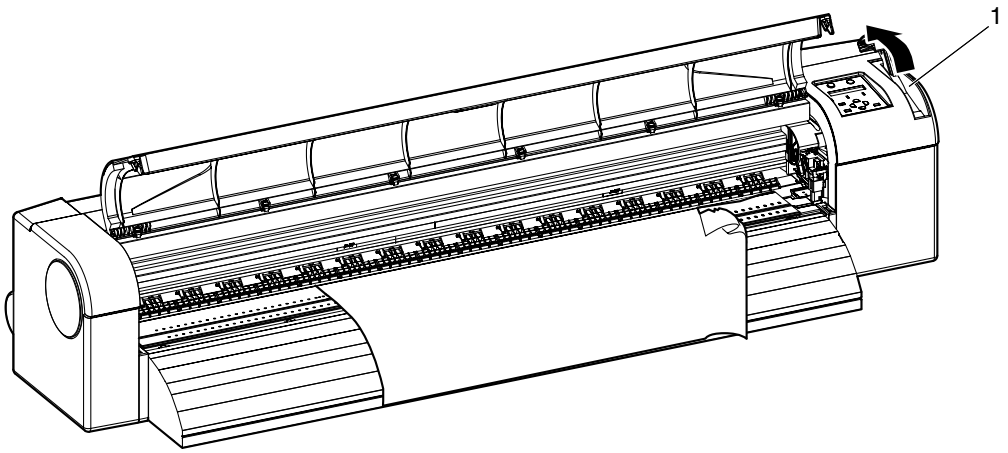
No.	Name
1	Front cover

3. Move the print head section from the top of the media to the right.



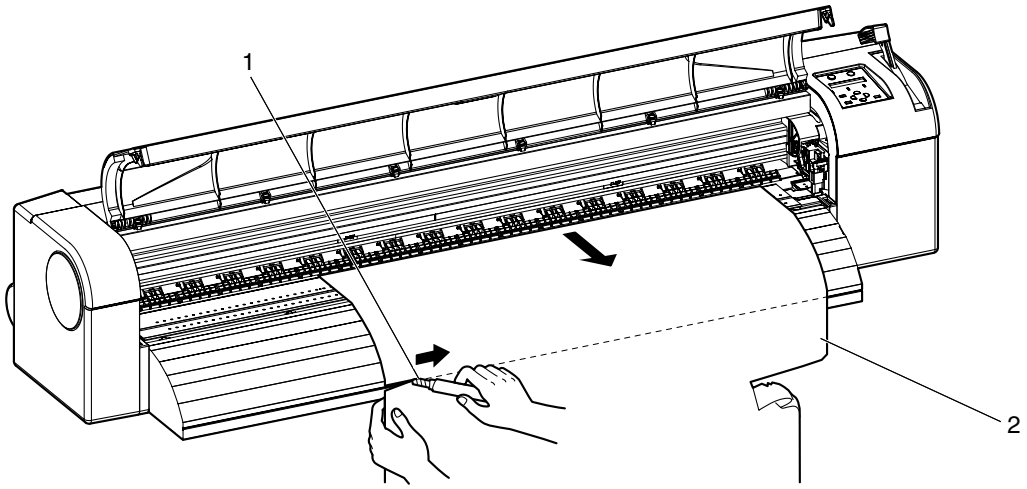
No.	Name
1	Print head section
2	Roll media

4. Push the media loading lever to the back.



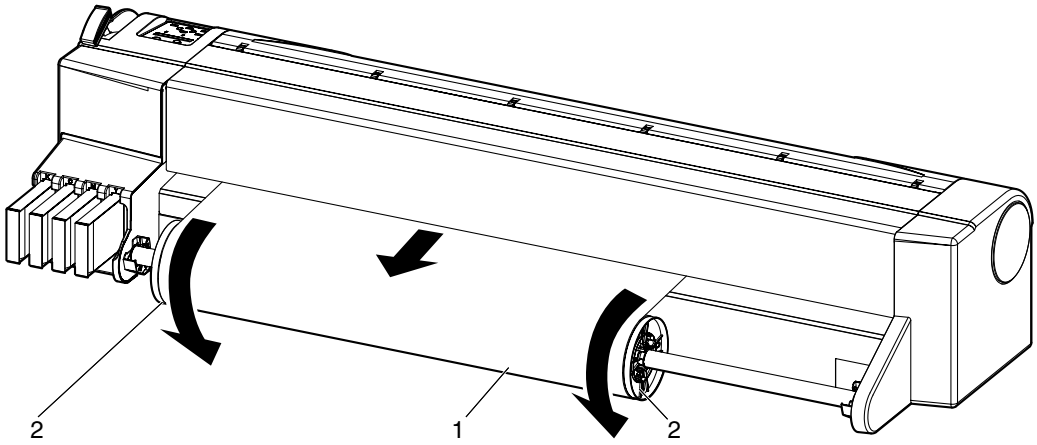
No.	Name
1	Media loading lever

5. Pull the media to your side, and cut the torn part with cutting tools such as a razor blade.



No.	Name
1	Razor blade
2	Roll media

6. Lift both ends of the scroller, and manually rewind the roll media.



No.	Name
1	Roll media
2	Scroller

7. If paper dust or pieces of paper remain inside the printer, remove them.

8 Appendix

This chapter describes specifications and included components with this printer.

8.1 Product specifications

8.1.1 Printer specifications

Item		Specification
Model name		VJ-1204
Printing method		On-demand piezo drive system
Drive system		Driving firmware servo/DC motor
Media feed system		Multipoint pressurizing grid roller system
Media fixing system		Pressurization roller down system by manual lever
Media feed/ejection		Rear feed/Front ejection
Outer diameter of the roll media		150 mm or less
Weight of roll media		19 kg or less
Maximum media length		50 m
Maximum media width		1,300 mm
Maximum print length		18 m
Maximum media thickness		0.3 mm
Maximum print width	When printing Uni-D	1,219 mm
	When printing Bi-D	1,200 mm
Print margin		Front: 3 mm, Back: 3 mm, Left: 3 mm, Right: 3 mm
Media cut system		Horizontal manual cut system
Head height adjustment		Normal (Low)/High (two-step adjustment)
CPU		64-bit RISC CPU
Memory		128 MB
Command		MH-RTL (RTL-PASS)
Interface		Network interface (Ethernet IEEE 802.3)
Ink	Supply system	Supplied through tubes from each of the four color cartridges
	Cartridge	Black, Cyan, Magenta, Yellow: 220ml ± 5 ml

Item		Specification
Environmental condition	Operating environment	Temperature: 20 °C to 32 °C Humidity: 40 % to 60 %, No condensation
	Printing accuracy coverage	Temperature: 22 °C to 30 °C Humidity: 40 % to 60 %, No condensation
	Rate of change	Temperature: within 2 °C per one hour Humidity: within 5 % per one hour
	Archiving environment (Ink unfilled)	Temperature: –20 °C to 60 °C Humidity: 20 % to 80 %, No condensation Storage life: six months
	Archiving environment (Ink filled)	Temperature: –10 °C to 40 °C Humidity: 20 % to 80 %, No condensation Storage life: four days (32 °C or higher)
Power	Power voltage	AC 90 V to AC 132 V / AC 198 V to AC 264 V
	Frequency	50 Hz/60 Hz ± 1 Hz
Power consumption	Printing	1300 W (Heater ON)
	Standby	Under 40 W
Outer diameter	Height	1,218 mm (including the stand)
	Width	1,772 mm
	Depth	685 mm
Weight	Printer	51 kg
	Stands	20.8 kg

8.2 Interface specification

This section describes each type of interface specifications supported by this product.

8.2.1 Network interface specification

Item	Specification
Network type	Ethernet IEEE802.3
Network I/F	10BASE-T/100BASE-TX Automatic transfer type (RJ-45 Connector twist pair cable) MDI/MDI-X Automatic transfer
Corresponding protocol	TCP/IP

8.3 Options/Supply list

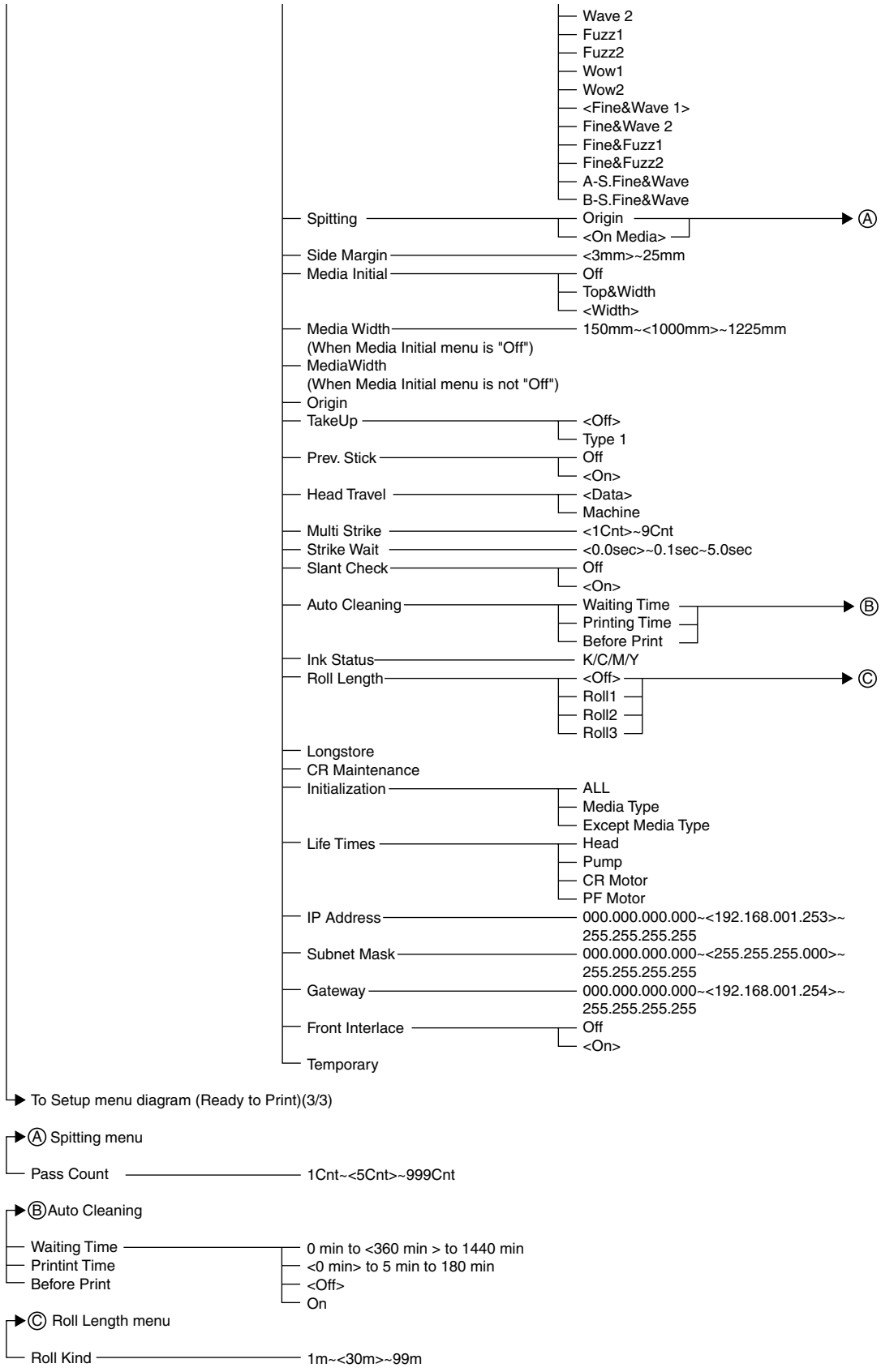
For more information about the options and the supply items, contact your local MUTOH dealer.

Setup menu diagram

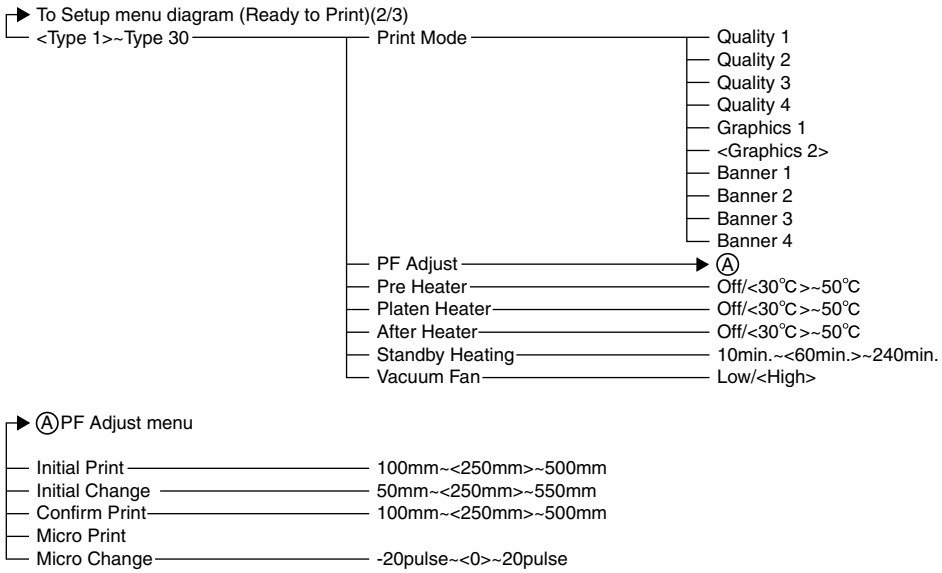
For details of the Setup menu configuration diagram, refer to the followings.

- For details of each setup item, refer to followings:
  - Setup menu diagram (Ready to Print):
    "5 Panel setup menu" in the Operation Manual
  - Setup menu diagram (Receiving / Converting / Printing):
    3.7.4 Changing and confirming settings while printing
- The < > parts in each list are factory default settings (initial values).

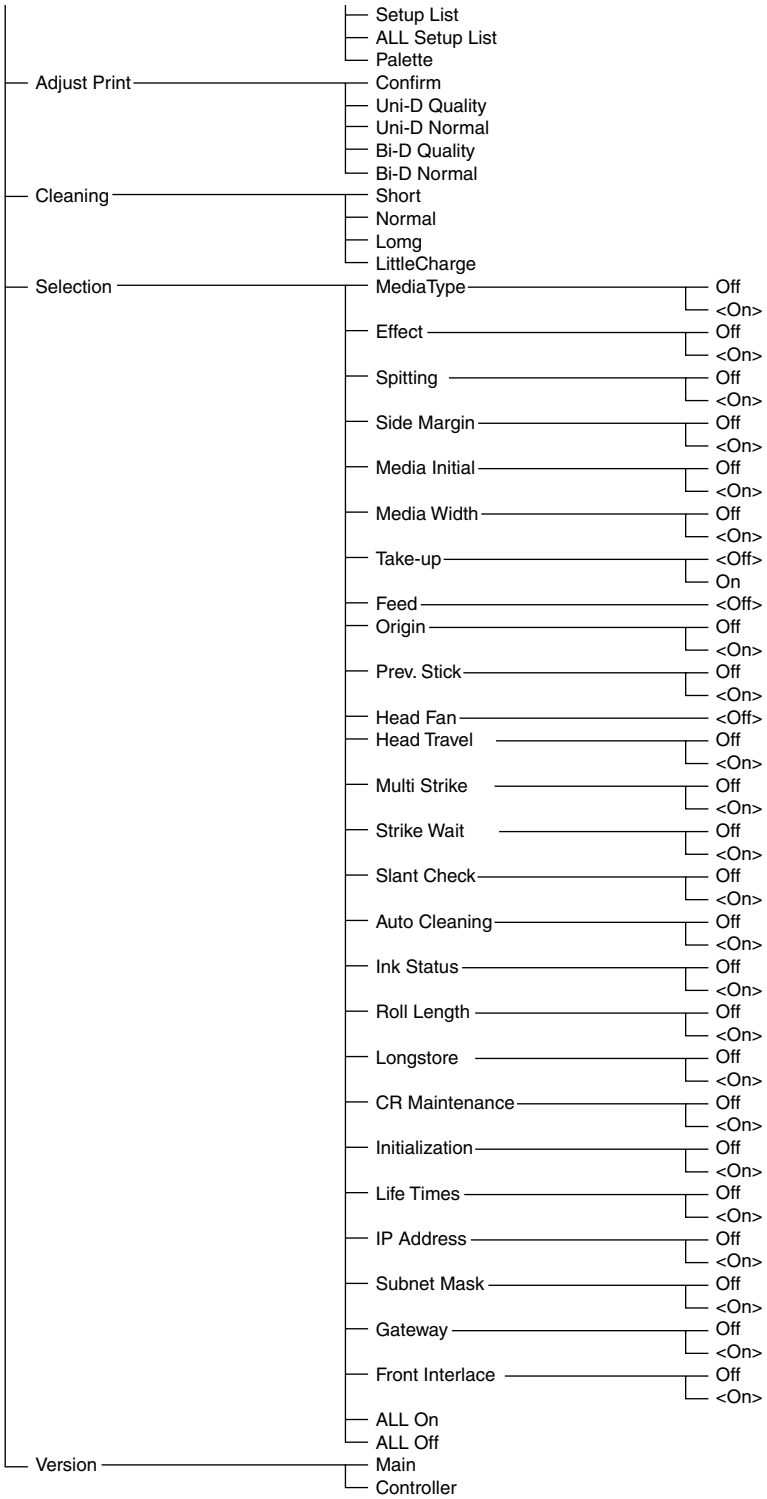
Setup menu diagram (Ready to Print) (1/3)



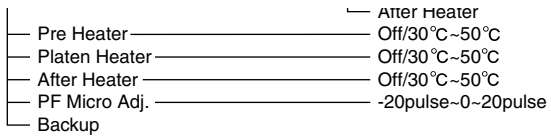
Setup menu diagram (Ready to Print) (2/3)



Setup menu diagram (Ready to Print) (3/3)



Setup menu diagram (Receiving / Converting / Printing)



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